

# JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

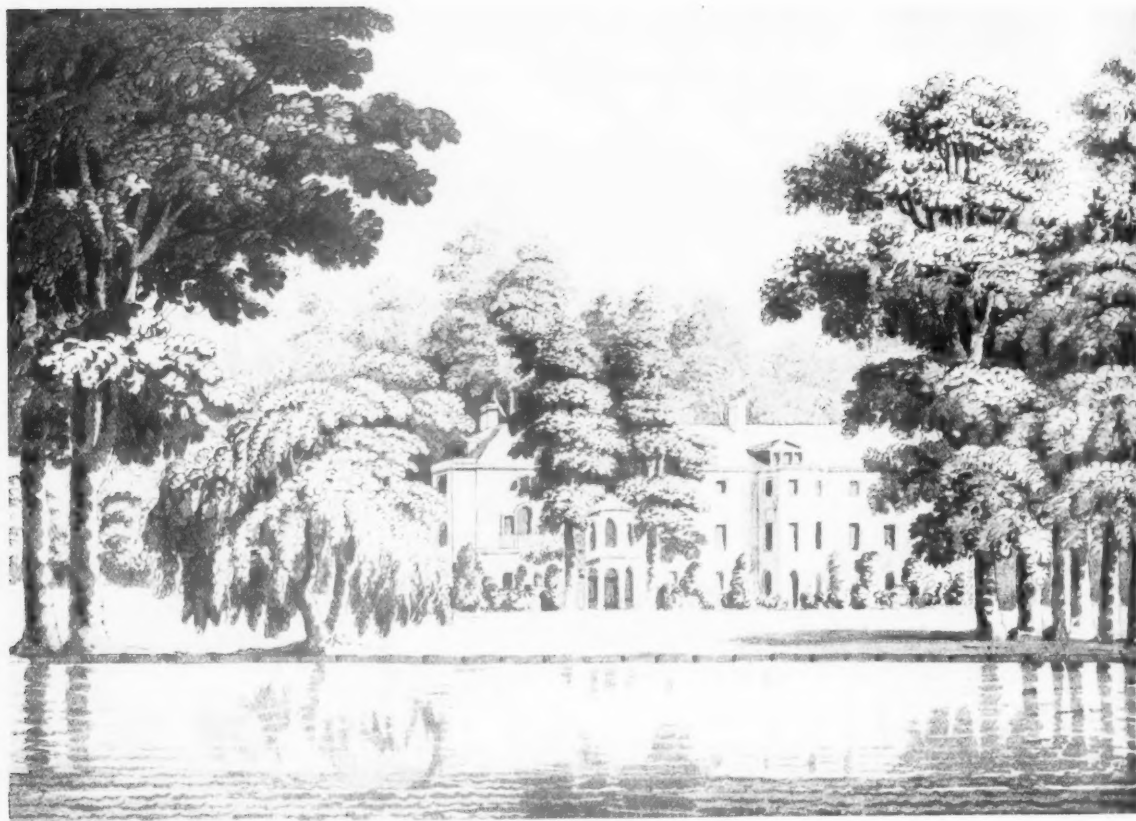
THIRD SERIES

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THE DUKE OF MONTAGU'S HOUSE, RICHMOND, *circa* 1830  
 From an aquatint in the R.I.B.A. Library

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# JOURNAL OF THE ROYAL INSTITUTE *of* BRITISH ARCHITECTS

VOL. 40. 3RD SERIES

27 MAY 1933

No. 14

## Journal

After the General Meeting on June 12 when the results of the Annual Election of the Council and Standing Committees will be announced, there is to be an informal discussion on matters of professional interest. This is a revival of a form of meeting that used to be held in the past. It gives an opportunity to any member present to bring forward in public ideas which he may think of value and which can then be subjected to the refreshing breeze of free discussion. Those who wish to bring matters up for discussion are asked to communicate with the Secretary.

For several years groups of modern European architects, impelled by "a common realisation of the necessity for a new conception of architecture and its relation to the structure of society today" have met annually at conferences when various aspects of contemporary architecture have been discussed. Although English architecture has always been represented by individual architects there has in the past been no organised representation from England, which has stood in undesirable isolation as almost the only country in Europe without an associated group to research and submit papers and reports on work to the conferences. We therefore welcome the formation of the new Modern Architectural Research Group (commonly known as "Mars") which, with Mr. Wells Coates as Chairman and Mr. F. R. S. Yorke [A.] as secretary, is to co-operate in the programme of the next and future International Congresses of Modern Architecture.

Architecture demands a new standard of research to correlate it to the numberless sciences which hitherto have played either no recognisable part or at the most a simple and fairly automatic part in the evolution of architectural form. Life now is so complicated that we cannot dare solutions without exhaustive preliminary research, which should be undertaken objectively as a means to the solution of a clearly recognised problem and not merely as the exercise of a benevolent desire to accumulate facts. Research "in vacuo" is almost worthless, it must be related to other efforts being made at the same time, and it is better that it should be restricted to a comparatively small but definite programme than that it should lose itself in generalisations—and research should be linked to some programme of publicity—which leads us back on the old theme that advance depends on an educated general public and that it is one of the first duties of the profession to do the educating.

Time and time again good intentions come to no good effect or even produce definite harm, because there has been insufficient realisation of the complications and inter-reacting and contrary elements in the structure of modern life. The Great West Road was a simple solution of what was visualised as a simple problem—the provision of a new egress from the West of London. The effect of a simple so-called solution of a complex problem there has produced a host of other problems, which it is now left for the town planners of London to solve as best they may. Sir Raymond Unwin's last report, written for the Greater London Regional Survey Committee, is a magnificent example of clear objective research, which has not yet by any means won the financial support it deserves. Last year the L.C.C., the body most intimately concerned, only granted £500 for the survey, a sum which is so preposterously inadequate as to defy comment. Fifty years ago the town planning problems of London were comparatively simple—at all events compared to those of today, so that some dictator might have given London a plan which would have forestalled half our present troubles, but now the approach is only through painstaking analysis, costly and slow.

A most vivid instance of how a reform done well and with all good intentions, but not quite well enough and without sufficient foresight, may completely defeat its own end is given by figures published by the M.O.H. for Stockton-on-Tees, Dr. G. C. M. McGonigle, in a paper which he read to the Royal Society of Medicine, and which was commented on in an article in the *New Statesman* on 20 May. Dr. McGonigle, with admirable foresight and possibly with some realisation of what his figures would reveal, kept very full birth, mortality and other health statistics in two districts in Stockton for five consecutive years. One district was the remnant of a large slum known as the "Housewife Lane area" in which were housed 1,298 people; the other district was a new housing area peopled with 710 late occupants of Housewife Lane.

We will repeat Dr. McGonigle's figures in some detail, as they were reported in the *New Statesman*: "Stockton-on-Tees, with a population of just under 70,000, had, for the two periods in question, average death-rates of 12.32 (1923-1927) and 12.07 (1928-1931) per thousand; the corresponding figures for the whole of England and Wales were 10.48 and 10.30. In the Riverside area the average

death-rate fell slightly from 26.10 (1923-1927) to 22.78 (1928-1932). But the transferred population, whose death-rate in the Housewife Lane area had been 22.91 (1923-1927), *has been dying fifty per cent. faster* in the hygienic Mount Pleasant estate, where the average death-rate rose to 33.55 (1928-1932). All the other populations tabulated, in England and Wales, in Durham County, in the borough of Stockton-on-Tees, and in the Riversea area slum, show a decreased death-rate during the same period."

This increased death-rate is not due to an increase in infant mortality, but solely to diseases of infective origin, and as Dr. McGonigle shows definitely, correlated with a diminished expenditure on food due to the occupants of the new houses being forced to pay a rent beyond their means. We hear daily expressions of pride in the standard of English housing and disdain at the lower standards of other countries, but a high standard at the expense of life is little cause for glory. There is work for every member of the community who can help in serious attempts to study the means by which architecture can be made to meet the demands of modern life. There are plenty of opportunities, through Housing Societies, through the R.I.B.A. Housing and Town Planning Committee and the Slum Clearance Committee, which is essentially a research body, and through newer bodies such as Mars, and when conclusions are reached the most difficult task of all remains to get them accepted by a solid unimaginative community.

One of the most notable gifts received by the R.I.B.A. library for many years is the collection of letters to Sir William Chambers which Mr. Sydney Kitson presented to us earlier this year. *The Times* honoured both the gift and the giver by printing on 18 and 19 May two articles by Mr. Kitson describing the correspondence which consists chiefly of letters addressed to Chambers over a period of 38 years from friends in England and France, such as Le Roy, architect to the King of France, and de Wailly, another French architect of note, from clients of distinction such as the Duke of Marlborough, Viscount Middleton, and Edwin Lascelles, Lord Harewood, for whom Chambers made a design for Harewood House which was ultimately built by Carr of York, and perhaps most interesting of all from his own relatives, of whom hitherto very little has been known.

On many of the letters Chambers has drafted his replies, on others are very interesting casual notes of accounts, etc. Among the most personal and entertaining of the drafts in Chambers's own hand is one for a reply to his son who, with his wife, has somehow caused offence to Sir William and who had professed ignorance of where the offence lay. "Sir, it is superfluous to mention what neither you nor Cornelia can be ignorant of and it is needless to repeat a grievance for which there can now be no remedy. . . ." The misunderstanding was not permanent and the next domestic letter records a gift of

pineapples from Chambers to Cornelia. Another draft is of some historical importance, in an agitated hand with many erasures Chambers writes to Lord North on 1 November 1775, three weeks after the death of Robinson, who was to have built the new government offices at Somerset House, and immediately after Chambers himself had been commissioned, begging leave "to thank your lordship for this distinguished mark of favour. . . ." There is no space here to enlarge on this valuable gift or to Mr. Kitson's informative and delightful articles. Anyone who missed them in *The Times* should endeavour to get copies of the two issues in which they appeared.

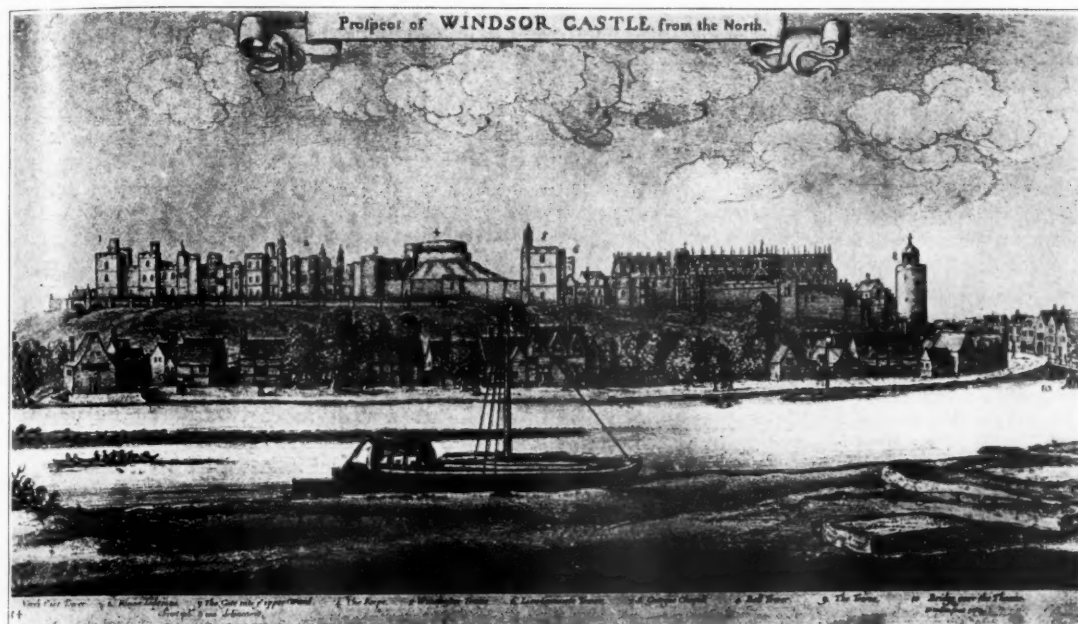
A very valuable scheme has just been organised under the auspices of the London Society for the provision of Architect Guides to London. "Architect Guides" is the title of the organisation, which has a dual purpose, both to provide employment for members of the profession and to make sure that visitors to London can, if they want, obtain the services of a guide who by his professional qualifications will be able to give authoritative information. The guides will all be architects with intensive training in surveying for city and town planning, with an intimate knowledge of London's architecture and of its galleries and chief places of interest. The service is clearly one for which there is likely to be great demand if everybody makes sure that it is known. Guides can be obtained and all particulars of the service from the Secretary, Architect Guides, c/o The London Society, Lancaster House, S.W.1.

In order to help entrants for the several municipal buildings competitions that are now being held, the Library has prepared extensive lists of references to all relevant literature showing where illustrations may be found of recent buildings likely to be helpful as precedents and giving also information about books and periodical articles. One list refers to Town Halls, etc., and another to Libraries. They may be obtained by writing to the Librarian.

We should like again to call for the co-operation of members of the Institute in this information work of the Library. Although every attempt is made to make the lists as complete and as useful as possible, it is probable that individual members will be able to add to the information given. A certain reticence about information which may be regarded as an architect's personal and private equipment is understandable, but wherever generosity allows, we hope it will be passed on to us for general use.

We have received a request for a copy of the Special Hospital No. of the *Architects' Journal*, 16 November 1932, which is required by the Government of Cyprus. We should be grateful if any member who has a spare copy of this number which he is willing either to give away or to sell, would communicate with the Crown Agents for the Colonies, 4 Millbank, Westminster, S.W.1.





WINDSOR CASTLE

From Hollar's engraving of a drawing by Wren

## THE ARCHITECTURAL ANTECEDENTS OF SIR CHRISTOPHER WREN

BY GEOFFREY WEBB, M.A.

A PAPER READ BEFORE THE ROYAL INSTITUTE OF BRITISH ARCHITECTS ON MONDAY, 22 MAY 1933

THE PRESIDENT, SIR RAYMOND UNWIN, IN THE CHAIR

THE purpose of this paper, which is to examine the evidence bearing on the beginnings of Sir Christopher Wren's career as an architect, divides it naturally into two parts. The first deals with the position of architecture in England in the years immediately preceding Wren's appearance and the second with the special personal equipment of Wren for his work. For every master finds in existence a body of practice and opinion on which he impinges from his own special angle. It is customary to call this body by the name Tradition, a word used a great deal nowadays and often, in my opinion, unfortunately; for as we use it tradition implies a sort of impersonality, almost a blind evolu-

tionary force which can easily be invoked by historians to cover up the defects of their knowledge. Whereas very often what is called Tradition may indeed be the influence of some dominating personality or some complex mixture of forces, ideas, personalities, technical circumstances which the historians have been unable to analyse. I am sorry to have to say that I shall not be able to bring to your notice this evening any very new personalities to body forth the history of mid-seventeenth-century architecture: research can never guarantee results by a certain date, but I am very conscious that this is not because such men did not exist, but simply because I have not worked long enough or hard

enough to find them. For example, there is a peculiarly elusive problem to which I shall have to recur, which I may name, with all apologies to S. Pirandello and Mr. Berenson, "six houses in search of an architect," and not merely searching but crying out for him, but so far I have been unable to put salt on his tail.

The eighteenth-century critics of the Palladian school were accustomed to attribute all English buildings with any pretensions to scholarly Classicism erected within twenty years of his death to Inigo Jones. Nowadays, thanks to Mr. Gotch, we know better than that; and there is evidence that even in the days of Lord Burlington and Kent the names of Pratt and Webb were at any rate known, though nobody seems to have bothered much about them. But there is a real truth reflected in the Jones worship of Lord Burlington and his group, for the figure of Inigo Jones does dominate the middle years of the century, as witness Sir Roger Pratt's notebooks, where he remarks that we in England have "nothing remarkable but the banquetting house at Whitehall and the portico at St. Paul's" to feed the imaginations of young architects, who in consequence must look to Italy and France. It is only justice, therefore, to start our examination with this great name.

Inigo Jones is regarded, and rightly, as having introduced the Grand Manner into this country. It was a task for which he was eminently fitted, not only by his position at court but even more by his friendship with Lord Arundel, who with his vast state, his retinues of servants, his great galleries of sculpture and painting seems to epitomise the Renaissance prince and to foreshadow the eighteenth-century noble collector, not to mention Lady Arundel, as much at home in her palace on the Grand Canal or at her villa at Dolo as in the ancestral house in the Strand. For it is in such a social *milieu* that the Grand Manner comes to birth. But there is something more concrete than this: Jones was bred a painter and practised mainly as a theatrical designer, and there can be no doubt, I think, that the Grand Manner, in common with all other forms of Baroque, is a reflection in architecture of a taste whose pre-eminent expression is a painting which tends more and more to the theatrical in its effects and the Pictorial Pageant drama, whose rise is one of the features of the later sixteenth and the seventeenth centuries. This is part of a very large question indeed, and we cannot go into it here, involving as it does the whole problem of the visual formalisation of life, that conception of State which is of the very stuff of the later Renaissance. And it cannot be without significance,

surely, that in Italy, Spain and France, as well as England, this is pre-eminently the age of the theatre and the great dramatists. That Jones was originally, and continued to be, first a pictorial theatre designer is attested not only by the resignation with which Mr. Gotch has accepted the facts in his book, but by the evidence of Jones's continued and living interest in the progress of this art brought to light by Messrs. Simpson and Bell in the Walpole Society volume of his drawings, from which we learn in this connection that on his second visit to Italy in 1613 he put himself to school again under the young Guercino, then just beginning to make his name as a painter, and profoundly modified his style of drawing in consequence. And perhaps even more significant than this his landscape drawings show the influence of Adam Elsheimer almost as early as do those of Rubens himself. It is interesting to note in this connection that Lord Arundel is known to have possessed two pictures by this obscure but influential master. It is no doubt from his painter's training that Jones derived his aesthetic with its insistence on "Design." We have some curious sidelights on his association with the use of this, at that time, comparatively novel word. First there is Ben Jonson's "Expostulation," in which he says:—

"... which by a specious fine  
Term of you architects is called design,  
But in the practised truth destruction is  
Of any Art, beside what he calls his."

And again, in the same poem he refers to "thy omnipotent design." More friendly references are Webb's to Dr. Charleton: "What was truly meant by the Art of Design was scarcely known in this kingdom until he . . . brought it in use and esteem among us here"; and I think we can accept this as a reference to Jones fairly safely considering the author. Sir Henry Wotton. "We are to observe whether the picture or outlines be well drawn or, as more elegant artisans term it, designed." It might have been expected that with such antecedents as these Inigo Jones's architecture would have been more noticeably "Baroque" in the common acceptance of that term than in fact it is. But here a *caveat* should be entered against the supposition that there is any fundamental antagonism between the freer Baroque which descends from Michael Angelo and the severer manner of which Palladio is the chief exponent. Bernini practised both manners, and we are apt to lay as much stress on the differences between the two schools as the masters of that time themselves, to whom they were a matter of passionate choice, whereas it is really more important for us to realise

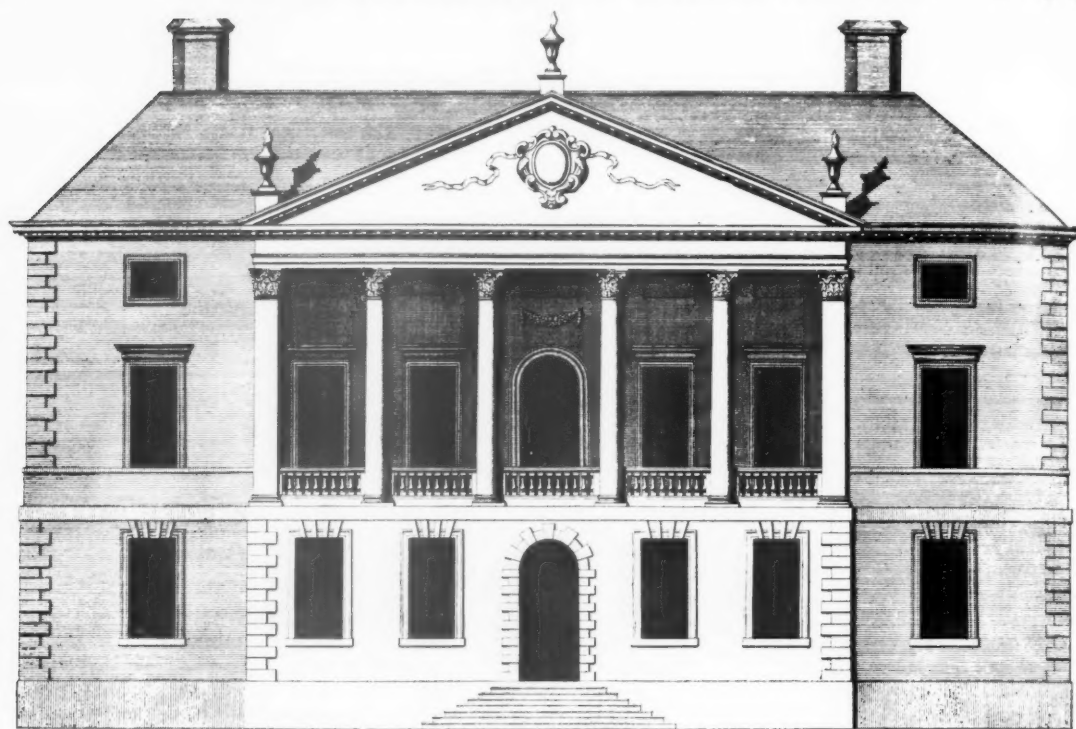
the fundamental identity of intention. In Jones's case, though he is not a strict Palladian in the eighteenth-century sense and was quite prepared to borrow a motif from Michael Angelo on occasion—witness the derivation of the Stoke Bruern pavilions from the Capitol—it was probably a lively sense of the horror of Flemish ornament riotously misapplied that made him turn for architectural guidance to Venice and Vicenza rather than Florence and Rome, and produced that very guarded condemnation of the composed ornament of Michael Angelo and his followers (except for gardens and interiors) and gave us the celebrated concluding sentiment about “masculine and unaffected” that is so often quoted by pedants without its context.

So much for the circumstances of the man who introduced the Grand Manner into England; but when we come to actual examples we have, in Sir Roger Pratt's words, “nothing remarkable but the banquetting house at Whitehall and the portico at St. Paul's.” It is odd that Pratt does not mention the Covent Garden scheme and the Queen's house at Greenwich; but it is probable that the first was too small in scale and the second too much of a country house to mention beside works of true magnanimity, to use a favourite seventeenth-century word. Of the two he does mention, the Banqueting House did set an example of princely and magnificent scale such as we find hard to appreciate nowadays when Whitehall has been debauched by a succession of brazen monstrosities in the form of Government offices, but which we can understand when we look at early drawings such as those of Kip or Hollar or at Canaletto's celebrated painting. Of its other qualities as an exemplar to its age there is no need to speak here; they are sufficiently appreciated. But when we come to the St. Paul's portico some explanation of its reputation is required. As we know it from Hollar and the drawings in the Library here it may well appear to us a jejune and arid thing enough, but we must remember that a colossal portico as such is no longer a novelty to us—we are satiated with colossal orders—and, moreover, Jones's portico was of such very considerable depth from front to back that it must have completely obscured the upper part of the west front—that singularly unsatisfactory gable end—for the drawing gives us no indication of the buildings that hemmed in St. Paul's then even more than now. In King Charles I's time I submit that the portico was almost as self-sufficing a structure as the Loggia dei Lanze. One other point in its favour, which we to-day are apt to forget, is its appropriateness to the

uses that were then made of the nave of St. Paul's as a place of public meeting and resort of the citizens for the exchange of gossip and opinion—witness the Elizabethan dramatists—the portico was a natural and appropriate addition to the accommodation for this purpose.

Except for a reference to the arcade at Covent Garden, which he mentions as based on Serlio, Pratt does not often refer to Jones's buildings, and when he does it is generally only to illustrate some point of detail in interior decoration. One of these has a special interest, and I should like to call attention to it. Pratt describes the ceiling of the Marlborough Chapel as it exists and gives it quite definitely to Inigo Jones. It is a small point, but the Royal Commission on Historical Monuments has attributed this building to a post-Restoration date on the negative evidence of a drawing by Hollar.

Perhaps the most important part of Inigo Jones's contribution to the establishment of the Grand Manner was his acquisition of Palladio's drawings. It is to Mr. Grant Keith that we owe the important discovery that, of the great collection of Palladio's drawings housed in this building, the large majority were brought to England by Inigo Jones before 1620. Moreover, Mr. Keith has shown that Jones allowed the drawings to be fairly accessible, lending some of them to Sir Henry Wotton and allowing John Webb, his apprentice, to make use of them for his architectural education. Mr. Keith points out that Webb not only copied the drawings but also did what may be termed exercises on Palladian themes, examples of which are to be found in the Burlington Devonshire Collection. All this goes a long way to explain the strongly marked Palladianism of Webb's work, in so far as we know it for certain. For I submit there has been some confusion as to the work of this master. Mr. H. A. Tipping has attributed to Webb a group of houses of the 1650's on the strength of a drawing in the Burlington Devonshire Collection, which may justly, I agree, be considered the origin of the plaster ceiling in the dining-room at Thorpe House, near Peterborough. This attribution has, as far as I know, passed without challenge. To me the evidence seems inadequate in view of other considerations, which may be summarised as follows. We have documentary evidence of a conclusive nature for three houses by Webb: Lamport (1654-7), of which the drawings are preserved here, accompanied by letters to the client; Belvoir (1654), mentioned in the Lamport letters and known from drawings in the Burlington Devonshire Collection, though the full scheme does not appear to have been carried out; and the King



GUNNERSBURY HOUSE, NEAR BRENTFORD  
From the engraving in *Vitruvius Britannicus*

Charles block of Greenwich Hospital, amply documented both at the Record Office and by drawings here. In addition to these there are two post-Restoration houses given in Campbell's *Vitruvius Britannicus*: Amesbury (1661), and Gunnersbury (1663). To these we may probably add the portico of the Vyne, Hants (1654), and possibly the gallery at Somerset House, known from Campbell, who dates it 1661, but does not mention Webb's name. Now all these buildings, even so modest a one as Lamport, are very markedly in the Palladian grand manner. They are just what one would expect from an architect trained as we know John Webb to have been. This applies to the planning no less than to the elevation treatments. But when we examine Thorpe we find some very strange lapses for an Italianate architect to have permitted himself. Thorpe is a rectangular block of a house having an elaborate eaves-cornice and a hipped roof rising to a flat leaded platform which was probably originally surmounted

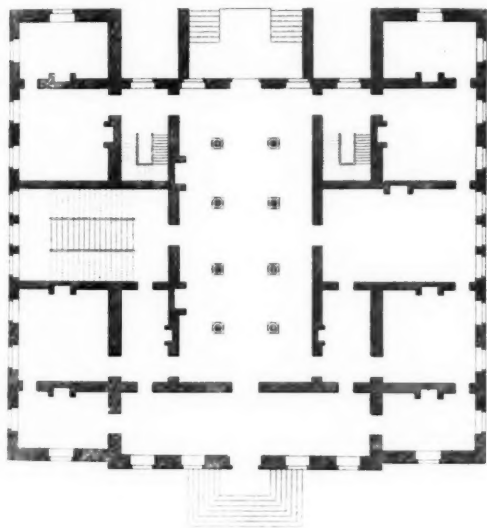
by a lantern cupola. Its chimneys are bold and enriched to form decorative features of great importance to the design. In all these traits Thorpe belongs to a family of houses which have great importance for us as early examples of the type of domestic architecture which Wren found already fashionable when he took up the profession—a type which he exploited with extraordinary mastery at Chelsea Hospital, for example, but which he can lay no claim either to have originated or established. But the exterior of Thorpe has other features than those described that look backward to Jacobean practice rather than forward to the Restoration. These are especially the curious oriel windows on the garden side, which seem so inappropriate to the main fronts that they have even been suspected of a nineteenth-century origin. There is, however, evidence against that. There are, moreover, on the corresponding end, grouped windows of the many lighted stone mullion type, which are equally old-fashioned in houses like



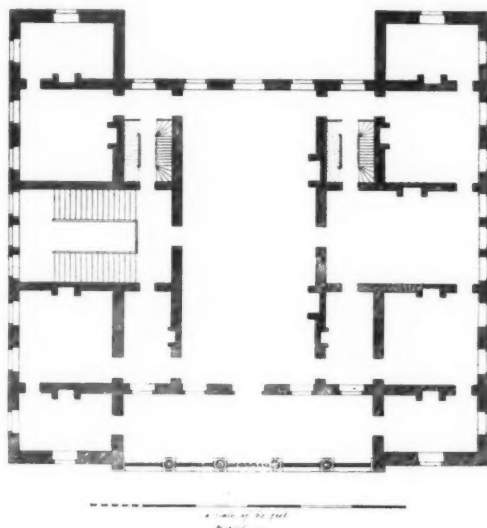
Thorpe. There is nothing in the whole range of Webb's work, whether built or on paper, to compare with these Elizabethanisms. There is, moreover, another point: the centre window on the first floor of each of the two main fronts is dressed to make a feature. The dressing is a variant of a motif with which I am afraid you may well become painfully familiar before I have finished with it and you. It consists in breaking out the architrave with mitres into lugs in a manner common enough in High Renaissance work, and—this is the point—supporting these lugs on a half pilaster complete with capital, and finishing in a scroll at the bottom and sometimes embellished with a band half-way up. Variants of this motif are found at Thorpe in the interior woodwork, and even the chimneypieces, as well as on the façade of the house. Again, there is nothing quite like this motif in any of Webb's authenticated designs, except for two of his overmantel drawings in which the architrave has lugs with drapery dependent from them. These considerations originally made me suspicious of the Webb attribution of Thorpe, in spite of the dining-room ceiling design. But the matter goes deeper than this: the motif we have been describing is found at Tyttenhanger (1654), both inside and out, at Thorney Abbey, not far from Thorpe, at Wisbech Castle (1655), at Wimborne St. Giles, Dorset (1650), and, earliest of all, at Cromwell House, Highgate (1637-8). These

are what I call my six houses in search of an architect. They have other qualities in common besides the use of the motif in question, notably in the planning of Thorpe and Tyttenhanger, and in all of them the motif is associated with other window dressings of a relatively advanced Renaissance type, and with the hipped roof, eaves-cornice, elaborated chimney-stacks, etc., except in the case of Cromwell House, where the original arrangement of the roof has been lost. That Thorpe, Thorney and Tyttenhanger formed one group was originally pointed out by Mr. Tipping some years ago, when he attributed them to John Webb. There is a further link between them in that they were all, except the first, built for eminent politicians of the Commonwealth period, or men who stood well with that Government—St. John, at Thorpe; Blount, at Tyttenhanger; Thurloe, at Wisbech; A. A. Cooper, at Wimborne; and the Earl of Bedford, at Thorney. In this connection it is curious to note that the characteristic motif appears in the dining-room overmantel at Forde Abbey, another house done up for a Commonwealth official and attributed to John Webb, though it is only fair to say that it also appears on the cupboards at the Selden end of the Bodleian Library, an institution that may be exonerated of any Whiggish tendencies.

The origin of this motif is obscure. The earliest dated example of an architectural character in



*The plan of the first floor of Gunnersbury House*  
*Plan du premier étage de la Maison de Gunnersbury*



*The plan of the principal floor of Gunnersbury House*  
*Plan du principal étage de la maison de Gunnersbury*

#### GUNNERSBURY HOUSE PLANS





TYTTENHANGER

Reproduced by permission from Belcher and Macartney's *Later Renaissance Architecture in England*

England is the door of St. Helen's, Bishopsgate (1633), but earlier than that we find something very like it in the decorations of the church of St. Charles-Borromée at Antwerp, a work in which Rubens was largely involved; and this fact gives significance when we find almost the nearest approach to it in Rubens's publication, the *Palazzi di Genova* of 1622. But more than this, I think we can find in this book one of the deciding factors in the adoption of the type of house we have been discussing irrespective of the appearance in them of a particular motif, for all the characteristics of the type appear there—the high-pitched hipped roof, the eaves-cornices, the solid block plan and the ornamental chimney features. And, lest you should think I put too much on one book, may I remind

you of the enormous prestige of Rubens's name not only in Flanders, but in this country, and even in France—where, incidentally, variations of our motif appear in Le Muet, though not published till the 1640's. A book published under Rubens's name would have an authority enjoyed by no other. In England it is probable that this Genoese type of house first appeared at Chevening, in Kent, in the early 1630's. It is just possible—but barely—that Chevening is of post-Restoration date, but if not, the traditional attribution to Inigo Jones will almost certainly hold. If it will not, we have at any rate a drawing by Jones dated 1638 of a house of this type in Lothbury for Lord Maltravers, Lord Arundel's heir, which, in default of evidence as to the roof of Cromwell House, can claim to be the earliest known



HOUSE FOR LORD MALTRAVERS IN LOTHBURY, 1638  
From the drawing by Inigo Jones in the Worcester College Collection

example. The finest example of the type, however, is Coleshill (1650), which in view of the date and his references to the planning of the house must, I think, be accepted as entirely by Roger Pratt. Coleshill is a masterpiece, and it is only its superlative merits that have induced critics to associate Jones's name with it at all costs. Pratt had travelled in Italy even more extensively than Jones, and, what is more to our purpose here, in his notebooks the palaces of Genoa and Rubens's book on them occupy a prominent place. Pratt remained faithful to this type of house in all the examples of his architecture of which we have record, but as far as we know he always used an ashlar facing to his houses. His contemporary, Hugh May, however, built houses of the same type, but often in brick. His only surviving work, Eltham House, is in that material, and so apparently were Berkeley House, Piccadilly, and his last and most applauded work, the house for Sir

Stephen Fox at Chiswick. Here again we have to summon up the name of Inigo Jones, for he not only first built this type of house in England, but was the most influential member of the Commission on London Buildings, on which he served in company with his friend, Lord Arundel. The Commission was set up in 1618 and re-formed and enlarged in 1620. It concerned itself largely with the limitation of new building on what would now be called "private open spaces" and the promotion of a high standard in actual building materials and methods. In practice this meant the energetic promotion of brick as a building material instead of timber, and an endeavour to improve the quality of brickwork by standardising sizes. In its later phases this Commission, which had extremely wide powers, and in one case certainly inflicted a fine of no less than £1,000, developed into a revenue-raising device—by the infliction of heavy fines in a way well known



PALAZZO SIG. GIOVANNI BATTISTA GRIMALDO, GENOA  
From Rubens's *Palazzi di Genova*

to students of the administrative methods of Charles I's personal period of government. But apart from this less admirable side of its activities, it had, I think, a very considerable influence on English architecture and certainly contributed to the improvement in the qualities of brickwork, so marked as to amount almost to a technical revolution, that came about during the first half of the seventeenth century. In this connection it must be borne in mind that London practice in the building trades was of immense influence on the whole country. I have found, for example, a building owner specifying that the work must be done in conformity with the standards set out in the London Building Acts of 1665 in a contract for a house to be built in Rutland. The first fruits of this brick

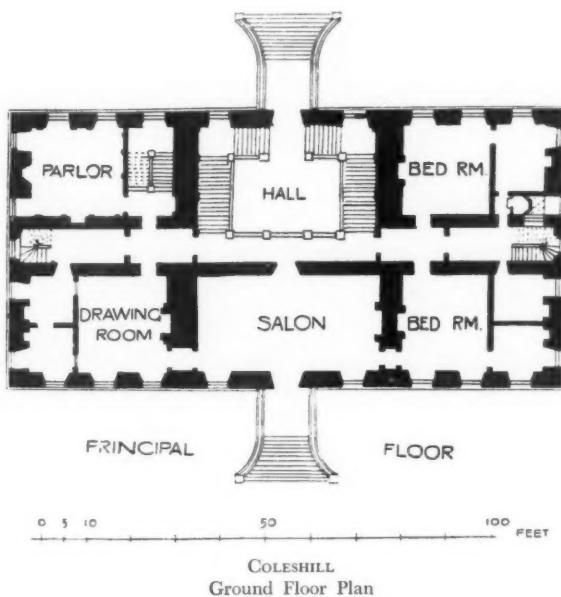
revolution are to be found in the introduction of Flemish bond, which appears alongside English bond in houses of the 1630's, such as Kew Palace and Raynham, in Norfolk, but another and perhaps more important result is the more enterprising effects gained by gauging and rubbing bricks—gauging seems to have preceded the introduction of special rubbed bricks—it is found as early as 1631 at Kew Palace. More advanced examples are the first of our six houses, Cromwell House, Highgate, 1637-8, and at Balls Park, Herts, another example of what I may call the Genoese type securely dated to 1638-40. The importance of this brick revolution in relation to Wren need hardly be stressed when we consider the use he made of this material and its importance in his architecture. Anyone

familiar with the brickwork of Wren's time can think of examples of the extraordinary virtuosity displayed by his craftsmen in this material. The domical vault over the Morning Chapel occurs at once to mind, but there are plenty of others.

We have now noticed all the main groups into which these houses of the "Genoese" type may be classed: the early, shall we say, Inigo Jones examples, Chevening and Lothbury; the Pratt and May groups which overlap Wren's early career; and our six houses. If I were to hazard a name for the architect of these last I should be inclined to suggest Carter, an official of the Office of Works, who continued there certainly till 1654, and is said to have died shortly after the Restoration. The characteristic motif is found in the woodwork of the Convocation House and Selden wing of the Bodleian at Oxford, a building with which Baldwin, the Comptroller of the Works under Inigo Jones, was certainly associated. Baldwin is a rather mysterious figure, who may, I submit, be the author of the Church of St. Catherine Cree; he died in 1641, and therefore cannot be responsible for all our six houses himself. Carter's dates, however, fit the group well, and we have strong indications in Thorpe that whoever was the architect he was in close touch with the leading London craftsmen of the middle of the century. There is some ironwork over one of the porches of a very rare kind, an earlier example being over the tomb of the Duke and Duchess of Lennox in Westminster Abbey; and the plaster ceilings are of a very advanced type. One of these, as we have seen, can be traced to Webb, but the seventeenth century had not the strict views that we have on the subjects of individual responsibility for works of art or on plagiarism. Of course, it cannot be stressed too strongly that the use of Carter's name is a mere guess—a sort of "amico di sandro" introduced for convenience—perhaps better called the master of the Genoese motif. It is perfectly possible that one of the leading craftsmen contractors may himself be the man we are looking for. We know that Nicholas Stone, for example, designed and built on his own—there is a respectable list of such works to his credit, to which I personally should be inclined to add the front of Kirby Hall, Northants—and there are such men as Marshall and the Stantons, as well as those obscure figures, the city surveyors, Mills, Oliver and Jarman, to choose from. We know little of these men but their names, and there I must be content to leave this irritating problem.

Before we leave this type of house altogether, however, a word must be said as to planning. In Webb's authenticated works the planning is, as one

would expect from the time he seems to have spent making plan studies from Palladio, markedly Italian: so much so, indeed, that Pratt comments unfavourably on Gunnersbury, saying that we "must by no means proceed to a rash and foolish imitation (of Italian models) without first maturely weighing the conditions of several climes, the different manners of living, etc., and the exact dimensions and other cir-



cumstances of the building, especially the lights, in all which things the hall and portico at Gunnersbury are very deficient." For the plans of Inigo Jones himself we have little to go on. The Queen's House is an exceptional building, the plan being largely dictated by the fact that a public roadway had to run through the middle of the ground floor. Chevening shows us something more normal, an early example of that compact planning round a nucleus of hall and saloon, of which the outstanding example is Coleshill, an altogether admirable and logical plan. The other house of Pratt's of which we know the plan—Horseheath—shows an equal mastery of the same principle on a larger scale. These plans, as Professor Richardson has pointed out, are considerably in advance of much of the work done till well into the eighteenth century. Eltham House, Hugh May's only surviving work except parts of Cornbury, shows similar principles and almost equal skill. Of the planning of our

six houses only Thorpe and Tyttenhanger are fair examples to take, and both show one peculiarity: their plans seem to be a compromise between the new idea of a solid rectangular block plan and the desire to retain the traditional entrance through a comparatively narrow screens passage cut off from the hall space.

Of Wren's immediate predecessors practising in the 1660's we have discussed Webb and Pratt at some length, but Hugh May deserves a fuller treatment than we have given him, for, as an official of the Board of Works, he was not only Wren's contemporary but his colleague in early years. Our first knowledge of May dates from 1656, when he accompanied the painter Peter Lely to Holland. From the evidence of letters and the fact that he was executor of Lely's will, this association appears to have been a lasting one, and there is reason to believe that his early training was as a pupil in Lely's studio. At the Restoration he became Paymaster of the Works, and in 1669, on Wren's accession to the surveyorship, he was promoted Comptroller. From the evidence of Pepys he was considerably disappointed at missing the Surveyorship himself, and as in the case of the equally disappointed John Webb, he was compensated by a good job; in his case the renovation of Windsor Castle, which he undertook in 1670. These alterations are fairly well recorded and known; their architectural interest was mainly in the planning and interior decoration. Of May's other buildings Eltham (1664), Berkeley House, Piccadilly (1665), Cornbury (1664), Cassiobury (1670-80), and Sir Stephen Fox's at Chiswick (1680), only Eltham and Cornbury have survived, though the destruction of Cassiobury is of comparatively recent date. May died in 1684. Perhaps his chief claim to fame rests in his introduction of a mature baroque style of interior treatment with the help of Verrio, the painter, and Grinling Gibbons, to whom he gave his first important commissions. The chief examples of this style were Windsor and Cassiobury, and we have to rely on Pyne's *Royal Residences* and photographs for our knowledge of his developed manner, for both Eltham and Cornbury date from before his discovery of his two collaborators. One other achievement stands to May's credit: it is apparently to him that we owe the drawings for the plates in Evelyn's edition of Freart's *Parallel of the Orders*, perhaps the most influential work of its kind in English.

On Sir John Denham, Wren's immediate predecessor at the Board of Works, and Captain Winde, more a contemporary than a predecessor, I shall not detain you long. Denham's reputation has suffered

from the fact that little is known of his work, and that he was a poet of some distinction—an unforgivable offence this last. There is, however, a little evidence that as an administrator of his department he was not ineffective, and the one work of his we know—old Burlington House—seems to have been not without merit both in plan and general appearance. Captain Winde I recommend to students; there is a certain amount of material, such as the drawing in the Ashmolean, and his career has never been adequately investigated. As we know him he shows the influence of both Dutch and French. The latter is of special significance in view of Wren's own interest in the French. It seems to be derived largely from Le Muet. The Dutch influence would be strongly confirmed if we could attribute Asdown to him with any security.

And now, when at last we come to Christopher Wren himself—and I freely admit we have taken a very long time to do it—if we ask ourselves what qualifications he had in the 1660's for the position he accepted, I think we must content ourselves with an answer that will sound very odd to the ears of the members of this Institute. The first is scientific attainments, which are hardly enough stressed, I feel, by his biographers. It is rash for me to generalise on this aspect of the master, but I gather that as a scientist and mathematician Wren is second only to Newton, who himself said that Wren was one of the three foremost geometers of his age. And praise from that quarter is praise indeed. You may well wonder what this has to do with architecture; you as architects and I as an historian and teacher are, I think, naturally apt to make a 'high disposed' mystery of the business; it increases our importance and we are but human. We are apt to forget that it is not very difficult to become a bad architect or even a mediocre one. And I think I may dare to say that, judged on the early work only, Wren would not rank very high. The point of his scientific attainments is this: that it was a first-class mind that turned to architecture in the late 1660's, and I am not using the term first-class loosely—on his standard it was an event which has only happened five or six times in the history of the art. May I remind you of the remark of a modern writer, apropos of Sir Isaac Newton, that the only appropriate gesture of respect for an average man to an intellect like Newton's is to go down on his knees and bark and wag his rump like a dog. And Wren was in Newton's class. Wren's early work is not the slick accomplished stuff of an academically overtrained student; he



is often fumbling amateurishly with the problems of design and as often as not it is only the superb craftsmanship that his predecessors had schooled ready for him that pulls the chestnuts out of the fire for him. But they are the experiments of a powerful and original mind and show just that inventive fecundity which appears also in his scientific work, for one of his strong points as a scientist was a practical ingenuity in devising experiments and improving those of other men. But there is another point in regard to Wren's scientific attainments: we are apt to take for granted that a great gulf is fixed between the domains of science and art. But to the men of the seventeenth century that gulf did not exist. Throughout the period of the Renaissance there is an underlying belief that art also is reducible to exact knowledge; that by rational processes the natural laws that govern it may be discovered just as in any other aspect of the natural world. That we do not believe with them is to be explained by the fact that we are the fag end of the Romantic Revival, a misfortune that descended to us and is not our fault. One of the symptoms of this Renaissance belief, that art was amenable to scientific exploitation, is their extraordinary and enthusiastic preoccupation with the problems of perspective. Architecture, too, with its important mechanical and constructive side, was especially interesting to them, and it is here we have one of the few points of obvious contact between Wren's scientific and architectural careers. Wallis, the master under whom Wren sat as an undergraduate and young Don, had, as early as 1644, when he was still at Cambridge, devised what is called the Geometric Flat Floor. The problem was to support a floor over an area wider than the length of the timbers available for joists. When Wallis became Professor at Oxford in 1650 and Wren was his pupil a model was made, and later Wallis lectured on its construction, and in Mr. Gunther's words as to the computation of what weight every joint of it sustains, "a floor in the tower of the public schools (in the Bodleian) was constructed according to this plan." Here we have surely the forerunner of Wren's roof of the Sheldonian Theatre, completed 1669. When we come to evidence of what would now be looked for as artistic ability on Wren's part, we have but one scrap: the charming landscape drawing of Windsor dated 1667 and engraved by Hollar. It is not much, but it is enough to suggest by its very accomplishment that it did not stand alone.

As regards the help Wren could get from books

we are left to speculation. The Wren sale catalogue in the Bodleian is a broken reed, and represents, in my opinion, the library of his son rather than of himself. An Alberti, a Serlio, a Palladio, a book on perspective, and a few travel books are all that it contains which can possibly have belonged to Wren before 1670. As a guide to his resources it is of no value. We may safely, I think, assume much more than this, including such works as Freart, Le Muet and Vingboons. When, however, we come to examine his early work in search of possible sources of inspiration our initial difficulty is that the Wren Society volume, 1933, has not yet appeared, and we are without the material to form a judgment on the City churches, which, belonging largely to the 1670's and 1680's, are the place to look for signs of the establishing and maturing of Wren's style. But if we take the known early work, one or two interesting suggestions will, I think, appear. Three of them, the block of chambers for Trinity College, Oxford (1665), the chapel at Emmanuel College, Cambridge (1668), and the little store house at the Tower (1664), all seem to show in the design of their roofs the influence of French examples. This is understandable enough as a reflection of that interest in French architecture which brought about the famous visit to Paris and remained with Wren all his life. The store house with its highly original roof plan may, perhaps, reflect again the scientist and geometrician. Pembroke Chapel and the Sheldonian, and perhaps the Custom House—though the last is suspect, as in the Calendar of Domestic State Papers Hugh May appears frequently in connection with it—are exercises in the orders, except for the special constructional and plan interests of the two latter. In some of the earlier City churches, notably St. Edmund the King, there seems a very definite Dutch influence, and this is apparent in some of the rare domestic designs, but too much can easily be made of it. In conclusion it is enough—perhaps little enough—if I have suggested to you that Wren was not born in an architectural vacuum; that there existed in the earlier years both a monumental and an established domestic manner; that coming as he did to architecture from what is to us a very unexpected quarter, the use he made of his inheritance was a very personal and individual one; and that the idea of Wren as the conservative formulator of vernacular tradition which has been popular of recent years may be a figment of the imaginations of a special school of thought that has seized upon the word Tradition as a stick with which to discipline its younger contemporaries.

## Vote of Thanks and Discussion

Mr. BERESFORD PITE, M.A.: Mr. President, ladies and gentlemen, I feel that the less said the better; we have had such a brilliant evening. Mr. Webb has not only charmed us with his style and his humour, but he has given us important and interesting facts, based on personal observation and investigation, which must have important influence on our view of this period. One so rapidly passes from Inigo Jones to Wren—the examination system promoted by the Board of Architectural Education necessitates it—that any accurate detailed study of the sources of design is prevented. I must take advantage of the occasion to say this. And we must also congratulate the students of the Architectural School at Cambridge on having Mr. Webb as their Lecturer on Architectural History. I think you can well understand the developing enthusiasm of that school under such a brilliant teacher.

Mr. Webb's investigations of the current material of domestic architecture at the period when Wren began to practise—that is, at the Restoration of 1660—are of great interest, but, I venture to suggest, of relatively little importance. What is important to us in Wren are the materials of his study for St. Paul's Cathedral. However much he may have been reliant on the work of his immediate predecessors or contemporaries, or upon acquaintance with the literature of the Rubens study of Genoese palaces, the Dutch books and the great French books, we can say with confidence that the work of St. Paul's was almost independent of those sources. It is difficult to discern the sources from which Wren's conception of St. Paul's arose. I would like to suggest as to the portico which Inigo Jones built at St. Paul's, that we know how popular it was, that it was not destroyed by the Fire, and that there was considerable hesitation about pulling it down. I think that if you look carefully at the facts of the Warrant design, at the later designs and at St. Paul's as it stands, you will find that Wren has embodied in the lower portico of St. Paul's much that was attractive in the portico of Inigo Jones. I think you will find that the proportions of the Corinthian lower portico—there is an upper one and a lower one—correspond nearly with those of the Inigo Jones portico, which was not in the same site; it was away to the west. Thus the popularity and success of the old portico was maintained by Wren in the existing building.

The question still remains—What were the antecedents of Wren, the sources of his inspiration? We will pass over the reflection of the work of Pratt and his colleagues in his later houses at Belton and Chelsea Hospital. There is grandeur and growing aspiration, there is the ultimate achievement of great success if you watch the growth of Wren's designs for St. Paul's. The first made was in 1661, in the year after the Restoration, when a Commission was appointed to repair Old St. Paul's; Wren, who was then only 29, was one of the Royal Commission, and at once conceived the idea of employing the

piers of the central tower of Old St. Paul's as a scaffolding round which he could build a rotunda, and on it raise a dome with a vast cone on top. Mr. Webb has not discovered anything like that in Pratt or Webb or Inigo Jones—by the way, what a happy name Webb is! We may marvel at the structure of the ceiling of the Sheldonian, but before he did that work he had wrought out the conception of this magnificent octagon put into Old St. Paul's, receiving the aisles and the transepts, and surmounting it with a vast model of heaven. His conversations with Evelyn and later references bear on this point. There is some mystery associated with the statement Wren made years before he went to Paris that he was shortly to be in touch with the designers of some of the best Italian buildings. Where that touch took place, what that communication was, we do not know. There is no evidence that he went abroad. All we can suggest is that there were passages of time in his life when he might have gone abroad. That design was made in 1661. The Plague was in 1665, when he goes to Paris for six weeks, and sees the work of François Mansard at Val de Grace and the Sorbonne. But that does not materially alter his design for St. Paul's. We can verify this by looking at the drawings at All Souls. In August, 1666, he submits the designs for the new dome inside Old St. Paul's, which was burnt down within a fortnight after.

A few years passed, years of trouble and difficulty, and then there emerges that astonishing new design, the model design, a perfect design in the Grand Manner of the sense of "State." What there was in the atmosphere of the Continent scarcely bears upon the production of this finely wrought out architectural problem, this completely new and original scheme for St. Paul's.

The later design, the design we have, the results of the Warrant, and many other troubles, is another subject altogether.

I venture to suggest, in thanking Mr. Webb most cordially for this paper, that the mystery of the antecedents of Christopher Wren's genius and talent as exhibited in his great work of St. Paul's still remains, and we shall look forward to another communication from him at as early a date as his studies will permit, to carry us further into this entrancing subject. There will be no hesitation whatever in thanking Mr. Webb for this exceedingly brilliant and useful paper.

Mr. H. M. HAKE (Director of the National Portrait Gallery): Ladies and gentlemen, I am not a student of architecture, and I am not therefore able to speak as learnedly as Mr. Beresford Pite in reply to Mr. Webb's entrancing paper. One thing I would urge, however, after listening to it, and that is that students should pay more attention to the structural side of architecture, that they should try to avoid the text-books with their weary string of names and dates, and that they should occupy themselves, as Mr. Webb has done, in trying to discover

what actually did happen at six o'clock in the afternoon on a certain day in the seventeenth century, because that is when the light comes from.

I was particularly interested in Mr. Webb's remarks on our use and understanding of the word tradition, a word used a great deal in argument nowadays and often with a wrong understanding of its implications.

I do not think that I have anything more to add except to second this vote of thanks very heartily and to express the hope that Mr. Webb will not confine his lectures too much to Cambridge, but that we shall hear more of him in London.

Mr. ARTHUR T. BOLTON [F.], before referring in detail to Mr. Geoffrey Webb's paper, produced for the information of the meeting an advance copy of the tenth volume of the Wren Society which was shortly to be published. The volume, he said, was of considerable importance since it contained a close analysis of the vestry minutes and churchwardens' accounts of the City churches, giving the names of all the workmen engaged on the fitting-up of the churches. Among the facts revealed, perhaps the most remarkable was that, contrary to all popular belief, Grinling Gibbons did not work in any church except St. James's, Piccadilly. They now had, on the other hand, the names of fifteen or sixteen other carvers who actually did the work. Mr. Bolton said that the Wren Society was working backwards, but would not deal directly with Inigo Jones—there would, he hoped, be an Inigo Jones Society when the Wren work was finished to carry research a stage further.

Referring to Mr. Webb's paper, Mr. Bolton said: I have never been able to accept Mr. Gotch's view as to the occupation of Inigo Jones's time; it is very much, I suggest, as if you supposed the students at the A.A. devoted not, say, one but three terms to the production of an A.A. play.

I would say this about Sir Roger Pratt. If you look at Pratt's notebooks as a whole, you will conclude, I think, that Pratt was a pedant. His notes are of that character, and as to Coleshill, the important point is that it had been begun by a relative, and Pratt comes home and sees this house and says, "This is not the sort of house you must build," and then he fetches Inigo Jones to go into it with him. Inigo Jones, I suggest, set out a scheme, and Pratt had a sufficient knowledge of Inigo Jones's method, and probably the services of the men who had been trained by Inigo Jones, and so it could be carried out so completely in the Inigo Jones manner. I do not believe that Pratt was a first-class architect. I put it on this ground: that at his famous Commission on St. Paul's in 1665, when Wren produced his revolutionary design of treating St. Paul's as Ely had been treated, by cutting out the four piers and forming an octagon, he was there confronted by Chichley, May and Pratt. Pratt's objections can be described as futile. Again, Pratt, later on, was afforded a view of Wren's model design. He gives a most incomprehensible account of it, showing that he did not at all understand what Wren was proposing to do.

I cannot see any evidence that Pratt was in any sense an architect of genius. In his notebook is a minute analysis of the external design of St. Paul's as carried out by Inigo Jones. It is difficult to follow, owing to the work having been destroyed. The preferential employment of Wren may well have been due to the personal selection of Charles II. May, who had a powerful influence with the Duke of Buckingham, no doubt had been promised the appointment, but the choice of Wren was probably due to consultation with Evelyn, because whenever Charles met Evelyn the discussion always seems to have turned on architecture.

Later on, in about two years' time, the Wren Society will return to St. Paul's and will be giving the building accounts. These accounts are far more than actual figures; they tell us the monthly state of the cathedral and show how the work was being done and the names of the men employed upon it. That, I think, rules out Oliver, whom Mr. Webb mentioned, because he was Wren's deputy at St. Paul's, and I have not found any evidence so far to show that he did more outside work than superintending the houses in Amen Corner, etc., for Wren.

In this tenth volume is a list of several members of Wren's office. The predecessor of Hawksmoor and the first clerk of Wren, so far as we know, was Andrew Phillips; and later on there was Wm. Dickinson, who appears to have been the Gothic man in the office. Dickinson is one of our earliest Gothic revivalists; he was largely employed on Westminster Abbey. He outlived Wren, and if it had not been for the interference of James, I think the western towers of St. Paul's would have been carried out more in accordance with Wren's own intentions, without those classic cornices.

It is impossible to say anything of Carter; he may turn out to have been a member of Inigo Jones's staff.

The Wren Society has not yet had the funds to publish a most important manuscript direct from Wren's library, one for which Soane gave a hundred guineas, which is "Court Orders," or Wren's own record of the proceedings of the Privy Council with regard to the rebuilding of London, etc. It is a manuscript of the greatest importance, and from it we can derive an extraordinary idea of the daily occupations of Wren and the many subjects with which he dealt. I think that Wren must have been blessed with an extraordinary memory; it seems almost incredible that he could have kept in his head all the complicated details of the financial administration of his buildings. He seems always to have had the most minute details at his fingers' ends, and the accounts relative to St. Paul's were kept to the last farthing and practically always they were regularly signed by Wren and Oliver every month. I think that Inigo Jones must have had very much the same responsibilities. The position of Surveyor-General was really that of Royal Architect. It was a post which brought him into close contact with the King and Court, and it was necessary for him to hold his position in the face of many rivals. There

was, for instance, Gerbier, who was architect to the Duke of Buckingham, the favourite of Charles II, and we know that he was very envious of Inigo Jones. He made nasty remarks about Jones's alleged non-success in respect of the new Banqueting House, and in various ways he shows a good deal of jealousy. It is impossible, I suggest, that Inigo Jones could have neglected the duties of his office.

It has been discovered that Arnold the carver was employed on the portico of old St. Paul's, and that he subsequently worked on Wren's new St. Paul's. This is only one instance to show how workmen, artificers and carvers who worked for Inigo Jones also worked for Wren. Wren had a first-hand knowledge, and it is impossible to look at Wren's early designs for St. Paul's without seeing that he was greatly influenced by the work which Inigo Jones had done in refacing the old cathedral. Moreover, it has now been found that he made a special offer to preserve one of the lanterns by Inigo Jones on the western towers, proposing to re-erect it at Chelsea. Unfortunately, the Commissioners for the cathedral rejected this offer. This again shows how inadequate are the only drawings we have of Jones's work at St. Paul's, as Mr. Webb has pointed out.

Mrs. ARUNDELL ESDAILE: May I venture to produce one contemporary piece of evidence which Mr Webb did not give as to the portico at Whitehall being considered one of the great works of Inigo Jones? The names were carved on his monument, and it was considered to be of such value that Edward Marshall went into Paul's Wharf and removed it for safety. What became of it I have not discovered.

Further, dare I venture to suggest a possible author for the six masterless houses? I am familiar with that moulding on the half-column in large foliated designs of the 60's in the seventeenth century done by the school of Edward and Joshua Marshall. Edward Marshall's help was given on Lamport. It has been a puzzle to me not to be able to find any domestic architecture for those two great sculptor-masons. Is it possible that Edward and Joshua, either alone or together, are in fact the master-masons to whom those six masterless houses owe their existence?

Mr. E. P. WARREN [F.]: I should like to mention one thing, and that is the strong sense of humour which Wren had, even in the most depressing circumstances. Even when he was being badgered by the ecclesiastical authorities about St. Paul's, he is reported to have said, "They do not deserve to have their City burnt down."

Mr. B. R. SAUNDERS [A.] also spoke, briefly referring to the debt Wren owed to the character of English literature of his day.

Mr. W. GRANT KEITH, who has sent a written contribution to the discussion, also supported the vote of thanks.

The PRESIDENT then put the vote of thanks to the meeting, and it was carried by acclamation.

Mr. GEOFFREY WEBB (in reply) : Mr. President, ladies and gentlemen, thank you very much for the way in which you have listened to me.

One thing struck me with reference to Mr. Pite's remarks. I admit that to talk about Wren without referring to his St. Paul's is like Hamlet without the Prince of Denmark. The sources of the design of St. Paul's may be a difficulty, but I did make one important point in my paper, namely, that with Wren we find a really first-class mind suddenly turning to architecture—a thing that has only happened four or five times in the history of the art. This fact alone, coupled with Wren's scientific interest in structural problems, is sufficient to account for the design of St. Paul's.

I would like to deal with Pratt and defend him against Mr. Bolton. We all make silly remarks on committees, and no doubt Pratt did it too. As to the remark about Wren's model design, he was not half-witted; even if he did not build Coleshill we know that he built Clarendon House. In the remark quoted about the St. Paul's model Pratt guarded his opinion by saying that it was after "a short and confused view of a quarter of an hour only," which explains perhaps his saying that the cupola was at the west end.

I had an awful suspicion, when I was writing this paper, that these wretched six houses in search of an architect had been dogging me for a long time, and I thought that if I were to go to Mrs. Esdaile, the problem would solve itself, or she would solve it for me. But it is the last little thing I did not do, I did not go to her. Otherwise I should have come to you—not, of course, mentioning Mrs. Esdaile—and I should have told you who was the architect of those six houses. I think she is almost certainly right, she certainly is the person most likely to know the name of the architect, and it is fortunate that she has been able to come here this evening—the glory has gone to the right quarter.

Mr. J. A. GOTCH, P.P.R.I.B.A., who was unfortunately unable to be present, has sent the following written contribution to the discussion:

There is one matter as to which I am not quite prepared to accept Mr. Webb's conclusions without challenge, and that is the elimination of John Webb from participation in the design of Thorpe Hall, near Peterborough.

I have been unable, in the short time at disposal, to look minutely into the question. But there is fair *prima facie* evidence that he was employed. Hakewill, who published his monograph in 1852, says that "It appears that Thorpe Hall was carried into execution under the direction of Webb." He does not quote his authority, but it is clear that he had some good reason for the attribution, and at the time when he wrote such reasons were founded on something more substantial than opinions as to style or the occurrence of particular features.

If, however, the question of style is taken into consideration, there is such a strong likeness between some of the interior work at Thorpe Hall and some of Webb's own designs as to make one hesitate to eliminate Webb without further investigation or some definite evidence which may be hidden somewhere in letters or building accounts.



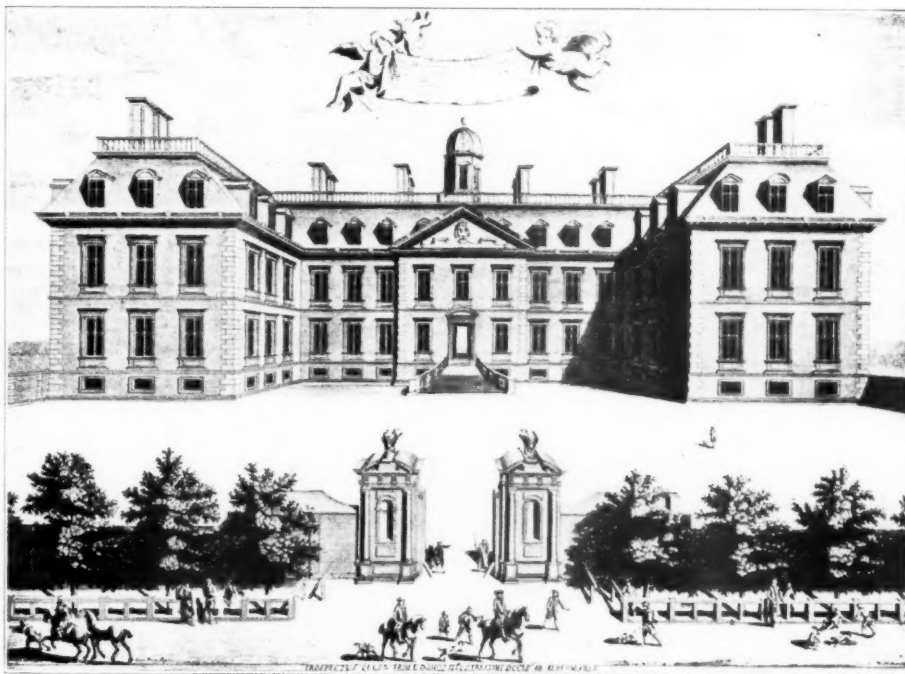
Mr. GRANT KEITH, who worked for many years in the R.I.B.A. Library on the Burlington-Devonshire Collection and who has since been in Italy trying to discover traces of Inigo Jones's sojourn there, has sent us the following contribution:—

I think Mr. Bolton is right when he advises Mr. Webb against unduly stressing the theatre side of Inigo Jones's achievement. That he revelled in the exercise of this part of his official duties his drawings amply testify, but his notes and observations on Palladio's text and designs and his study of the actual buildings in and around Vicenza show how great was his assiduity in architectural study. And, although we have lost the drawings he made in Rome, we know from his critical notes on Palladio's fourth volume how close were his observations of the master's reconstructions of classic architecture. And he is in frequent disagreement with Palladio. On one of his journeys through France he made a pilgrimage to the Pont du Gard, and we have his annotated drawing of it.

Regarding his connection with Lord Arundel, we should remember that although it was Arundel's inexhaustible purse that paid for the sculpture and pictures that he collected from Italy and elsewhere in Europe, it was Inigo Jones who was his guide and adviser throughout their Italian tour in 1613-14. Inigo Jones was then a man of forty, and Arundel his junior by twelve years. I think there can be no doubt whose was the connoisseurship in making the selections during that early period of Arundel's collecting. And in later years there is docu-

mentary evidence of Jones handling purchases of works of art on behalf of Arundel. The sculpture gallery at Arundel House was designed to receive the collections by Inigo Jones.

Inigo Jones seems to have aimed at being the complete architect on the Vitruvian model—and the theatre was not overlooked by Vitruvius. We must not forget, too, that some of the most famous architects of the Italian Renaissance contributed to the development of modern scenic design—e.g., drawings of stage settings by Peruzzi, Serlio and others are still preserved. And the Vitruvian architect was also a military engineer, and in this connection, although there is no evidence of Inigo Jones carrying out any work of fortification, curiously enough, there is a book on that art from his library (at Worcester College) which is as voluminously annotated as his copy of Palladio. Actually, I think it must have been due to Prince Henry's extraordinary interest and knowledge of fortification and the art of war (on one occasion he staggered the Venetian Ambassador with his knowledge of one of the chief Venetian fortresses and admitted to possessing a copy of its plan) that Inigo Jones was actuated to extend his studies in this direction. But however that may be, if Jones did not put his study into practice we know that in the succeeding reign his pupil John Webb did, and it must have been in his master's office, and nowhere else, that he learned the rudiments of the art. This was indeed an art far removed from the devising of scenes and machines for the Court stage.



CLARENDON HOUSE

Built by Pratt for the Duke of Albemarle, it formerly stood on the north side of Piccadilly, facing down St. James's Street





Now suppose the plane  $AB$  has a coefficient of reflection  $\beta$  and it is required to find the total intensity at  $L$ , a distance  $r$  from  $S$  and  $r_i$  from  $I$ . If  $N$  is the intensity of

Returning to Fig. 1 it will be seen that the loudness at  $L$  is given by  $10 \log. (N + \frac{Nr^2\beta}{r_i^2}) db.$ , and it is interesting

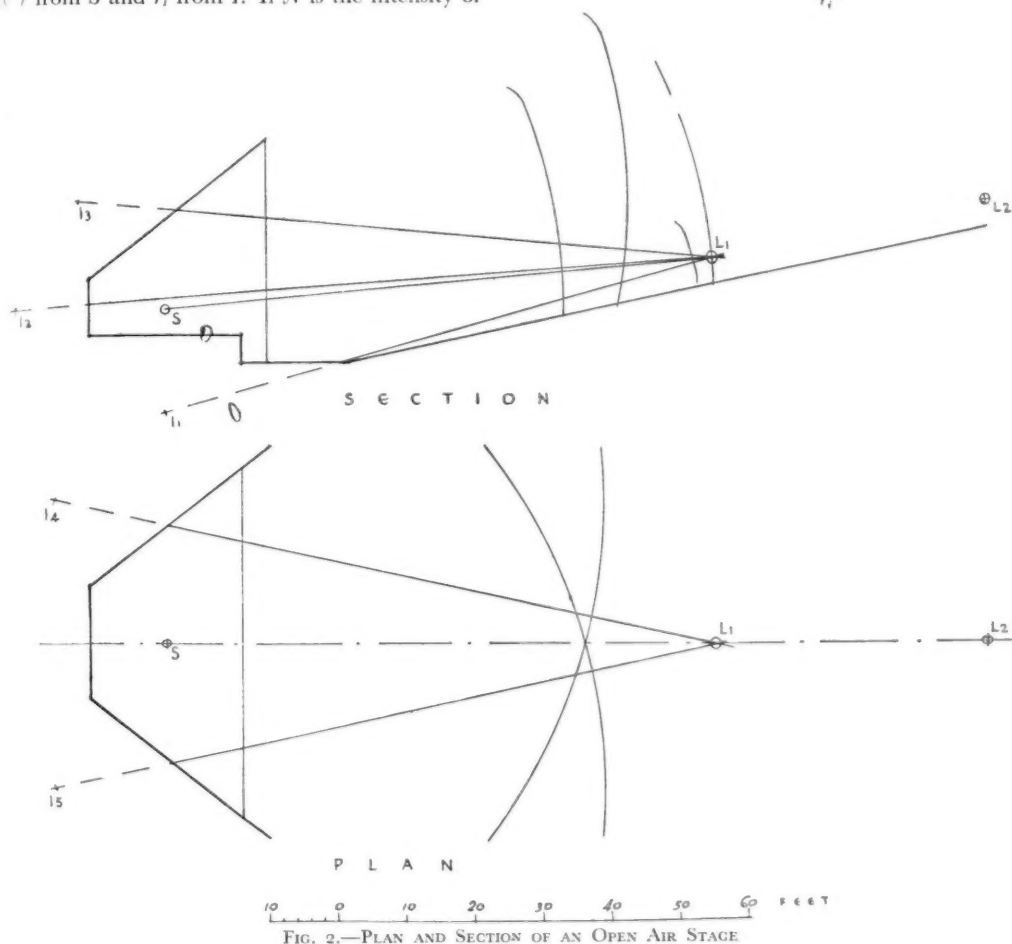


FIG. 2.—PLAN AND SECTION OF AN OPEN AIR STAGE

the direct sound at  $L$ , then at  $S$  it will be proportional to  $Nr^2$  and at  $I$ , to  $Nr^2\beta$ . Therefore at  $L$  the intensity of the reflected sound is proportional to  $\frac{Nr^2\beta}{r_i^2}$ .

The intensity is calculated in terms of minimum audibility at the same pitch, the standard source used by Sabine having an intensity 1,000,000 times as great as that of the minimum audible sound at a frequency of 512. The loudness is measured in decibels as  $10 \log.$  intensity. Thus Sabine's source has a loudness level of 60 db. This also represents approximately the number of easily perceptible increments in loudness above minimum audibility.\*

\* See Bagenal and Wood, *Planning for Good Acoustics*, p. 11.

to calculate, on this basis, the effect of reflectors on the hearing of speech in the open air.

Fig. 2 shows the plan and section of an open-air stage with back, side and overhead reflectors. To give an approximate average the source is fixed at the centre of the stage and for the purpose of our calculation it is assumed to be the voice of a speaker, sufficiently loud and distinct to be understood without the aid of reflectors, other than the ground, at a distance of 80 feet. If  $N$  represents the intensity level of the direct sound at  $L_1$ , a distance of 80 feet from  $S$ , then the relative intensities of the reflected beams and the total loudness can be calculated by the method given above and the results tabulated thus:

Beam from	Length of path (feet)	Coefficient of Reflection	Intensity at $L$
$S$	80	—	$1.00.N$
$I_1$	85	0.90	$0.80.N$
$I_2$	100	0.95	$0.60.N$
$I_3$	90	0.95	$0.75.N$
$I_4$	95	0.95	$0.70.N$
$I_5$	95	0.95	$0.70.N$

Total intensity at  $L_1$  .. .. .  $4.55.N$

Knudsen estimates that for satisfactory hearing of speech (75 per cent. articulation), a loudness level of 47 decibels is required.\* On this basis the intensity level represented by  $N$  would be about 26,000, the total intensity at  $L_1$  becomes 118,300 and the loudness level nearly 51 db. The distance, along the centre line, at which this sound would be reduced to a level of 47 db. is about 120 feet. That is, at  $L_2$ .

In this case only those beams of sound which reach  $L_1$  or  $L_2$  after a single reflection have been considered. It should be noted that there will be several double reflections, but it must also be remembered that the area covered by beams from both  $I_4$  and  $I_5$  is limited to positions near the centre line, so that positions on either side will receive only four single reflections instead of five.

So far consideration has been confined to plane surfaces and a single fixed source. The position of the reflectors must be determined in relation to limiting positions of the source if it is movable and if, for practical reasons, the boundaries of the surfaces are fixed, a greater area can be covered by using concave or convex sections. Reference to Fig. 3 will show that rays are reflected at a wide angle from a convex, as compared with a plane, surface and that from a concave surface they either diverge at a comparatively narrow angle or converge to a focus and then diverge again. In neither case is the intensity distributed uniformly over the whole wave front nor can the inverse square law be applied. If concave surfaces are used care must be taken to avoid the possibility of sound foci near the source or near the listeners.

Efficient reflectors must be dense, rigid and smooth. In connection with the degree of smoothness required we quote the following:†

"Theory and practice alike indicate that it is only necessary to have the surface so smooth that the depth of the roughnesses is small (say one-tenth) in comparison with the wavelength of light. Similar considerations apply in the case of sound waves, but owing to their relatively great length, only very deep decoration will destroy the regular reflection of sound from a surface. Thus for speaking-voice requirements in, for instance, a theatre, the depth of relief upon a dangerous surface would require to be about one-tenth of 5.5 feet, or 6½ inches."

\* V. O. Knudsen, *Architectural Acoustics*, p. 495.

† Bagenal and Wood, *op. cit.* p. 7.

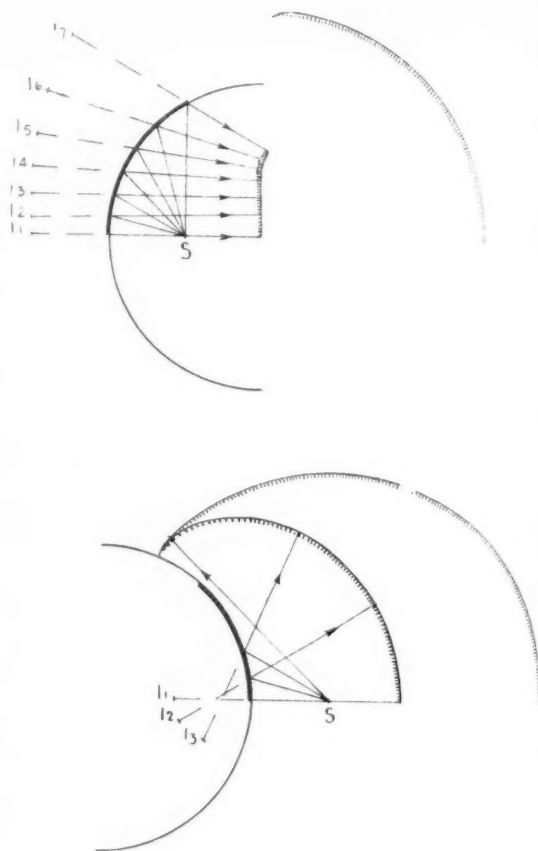


FIG. 3.—REFLECTION FROM CURVED SURFACES

If the excess of a reflected path over the direct, to a listener, is as much as 60 feet an echo is heard. Surfaces, therefore, which throw sound back to the source must not be at a greater distance than 30 feet and should preferably be less.

#### THE HOLLYWOOD BOWL\*

A consideration of the splayed side reflectors shown in Fig. 2 will show that incident rays above a certain level are returned, not downwards as on to an audience, but into the air overhead, where they are wasted. Now if, above this level, the sides are sloped inwards, so as to form a semi-octagonal front elevation, the rays will be reflected downwards and so converted into useful sound. A natural development of this is illustrated in the Holly-

\* A more complete account of the Hollywood Bowl is given in Knudsen's *Architectural Acoustics*, p. 504. See also an article by Hope Bagenal in *The Architect and Building News*, 8 January 1932.

wood Bowl, in California, in which the semi-octagon becomes a semi-circle, the whole shell thus forming half

of a truncated cone (Fig. 4). The reflecting surface is built up of nine concentric bands about 6 feet wide and sloped at an angle of 51 degrees to the centre line of the cone. These tend to diffuse the sound and to break up potential foci.

The depth, from the stage to the most remote seat, is 550 feet, and the whole area, seating 22,500 people, is considered satisfactory for hearing orchestral music. Fig. 5 shows the results of speech articulation tests, about which Knudsen says, "Under the existing conditions, the articulation is in excess of 75 per cent. for all listeners within about 200 feet of the stage; and if speakers raise their

voices to a high level they can be understood in all parts of the Bowl."

### BANDSTANDS

Although the maximum distance from source to listener is necessarily less with the open bandstand type of stage than with the shell type it has this advantage, that a larger number of listeners can be placed close to the source. The overhead reflector must be designed to give a wide distribution of sound, equally from all instruments, to listeners on all sides.

It can be seen from Fig. 6A that the area covered by single reflections from a plane horizontal surface is very small and that too much sound is confined to the players themselves, by inter-reflection.

Fig. 7 shows the section of a circular bandstand of this type, recently erected at Prague. Simultaneous wave fronts are shown, after a single reflection, with a hatched line, and after double reflections, with a double line. Here the sound is further confined by the solid balustrade surrounding the platform. An improvement is shown in Fig. 6B, where, by sloping the reflector, sound from limiting sources  $S_1$  and  $S_2$  is directed well out to the more remote listeners and inter-reflected sound is quickly dispersed.

Fig. 8 is a view of the bandstand in Kensington Gardens, erected last year by H.M. Office of Works. The plane slopes of Fig. 6B have been developed so as to form, in section, a continuous convex curve struck from three centres and the deck is cambered 4 inches from nosing to centre in order to throw out inter-reflections still more efficiently. The diagram (Fig. 9) shows the method of reflection.

An extensive study might be made of resonators, as distinct from reflectors, and space does not permit of it here. Under this heading, however, the base of this bandstand provides such an excellent example that a brief description of it will be included. The deck and sloping sides are teak boarding, with caulked joints, and they are securely fixed together at the angles so as to form a continuous surface. Support is given by the concrete piers which carry the columns above, and thus the central part of the deck is free to vibrate and so give added quality to the musical tones. In addition there is a space, some 7 feet deep, below the stage, communicating with the open air through small vents in the sloping sides, which

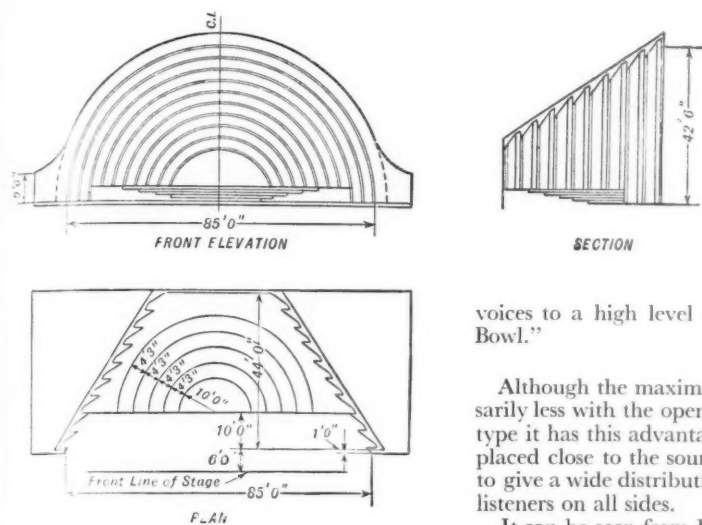


FIG. 4.—PLAN AND SECTION OF THE ORCHESTRA SHELL FOR THE HOLLYWOOD BOWL.

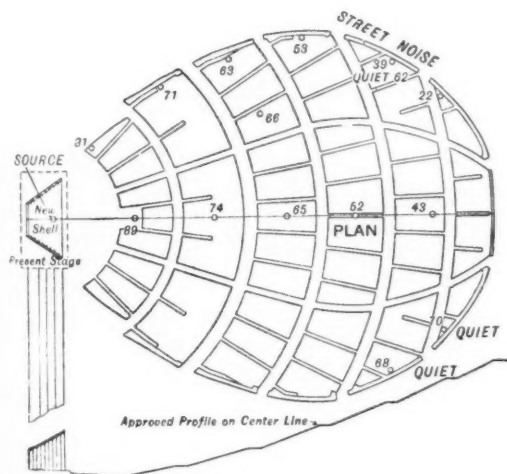


FIG. 5.—INTENSITY DISTRIBUTION IN THE HOLLYWOOD BOWL OF A 512-CYCLE TONE LOCATED AT THE FRONT CENTRAL PART OF THE SHELL.

The numbers give the approximate sound levels in decibels

[This and Fig. 4 reproduced by permission from Knudsen's *Architectural Acoustics*]

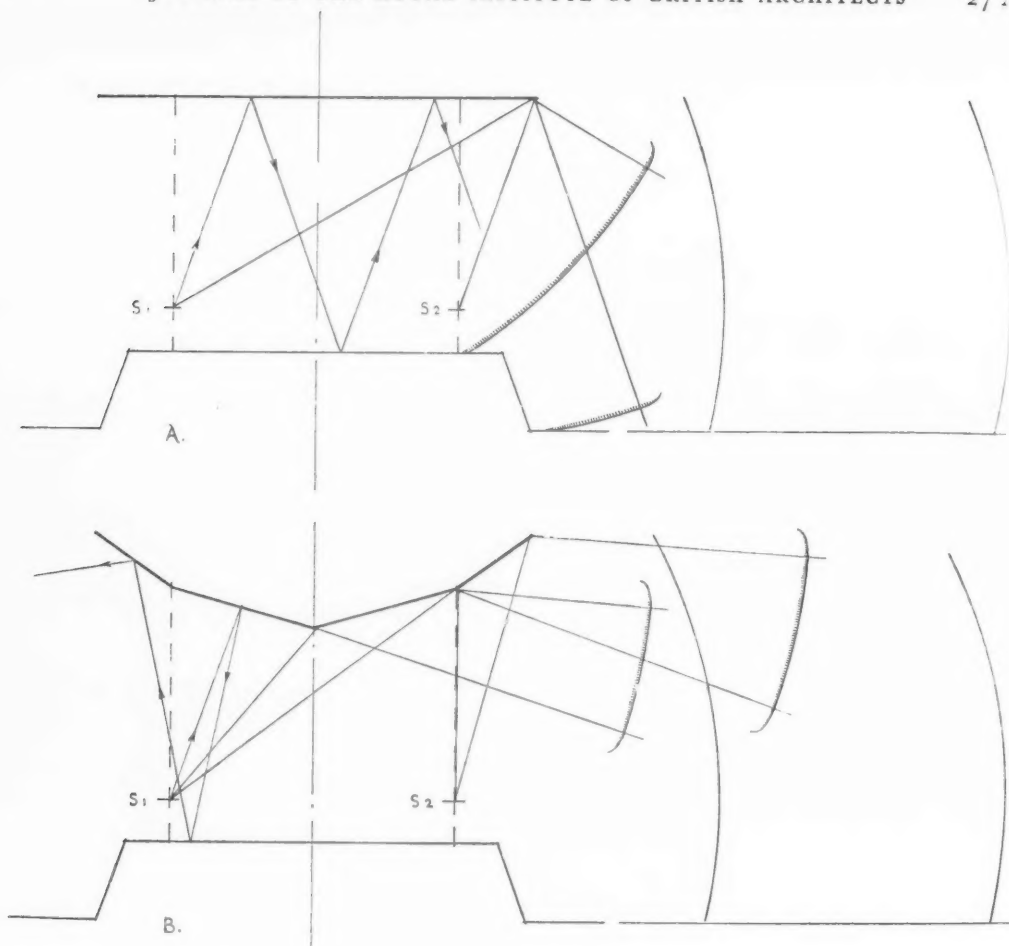


Fig. 6.—REFLECTION FROM FLAT AND SLOPED CEILINGS OVER BANDSTANDS

Fig. 7.—SECTION OF A CIRCULAR BAND-  
STAND AT PRAGUE  
Architect, Szalatnai

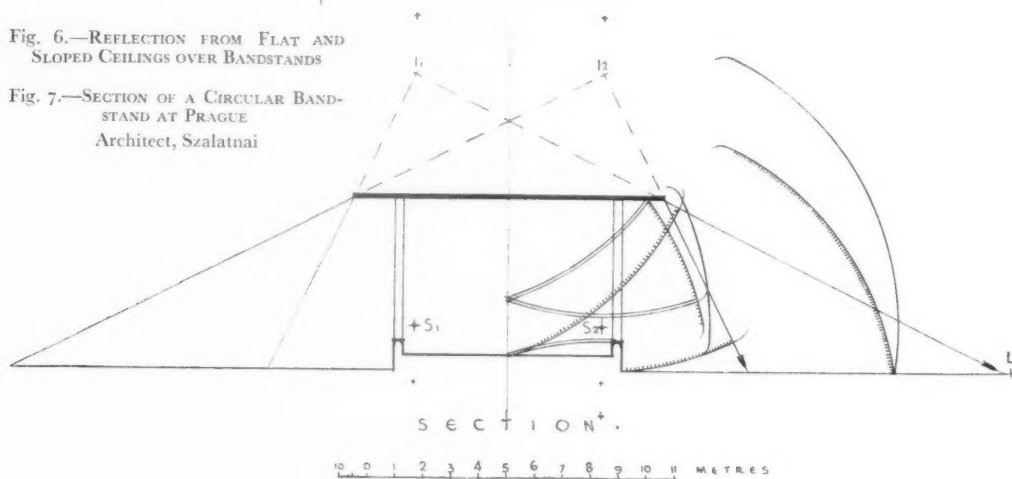






FIG. 8.—BANDSTAND IN KENSINGTON GARDENS  
Photograph reproduced by permission of H.M.O.W.

may be compared with the S shaped openings in the belly of a violin.

The columns supporting the overhead reflector are of cast steel, tapering from about 6 inches at the top to 4 inches at the base, and they are eight in number. It should be noted that thin shafts, such as these, will, owing to the diffraction of sound, cause less obstruction than fewer but thicker ones.

#### OPEN-AIR PULPITS

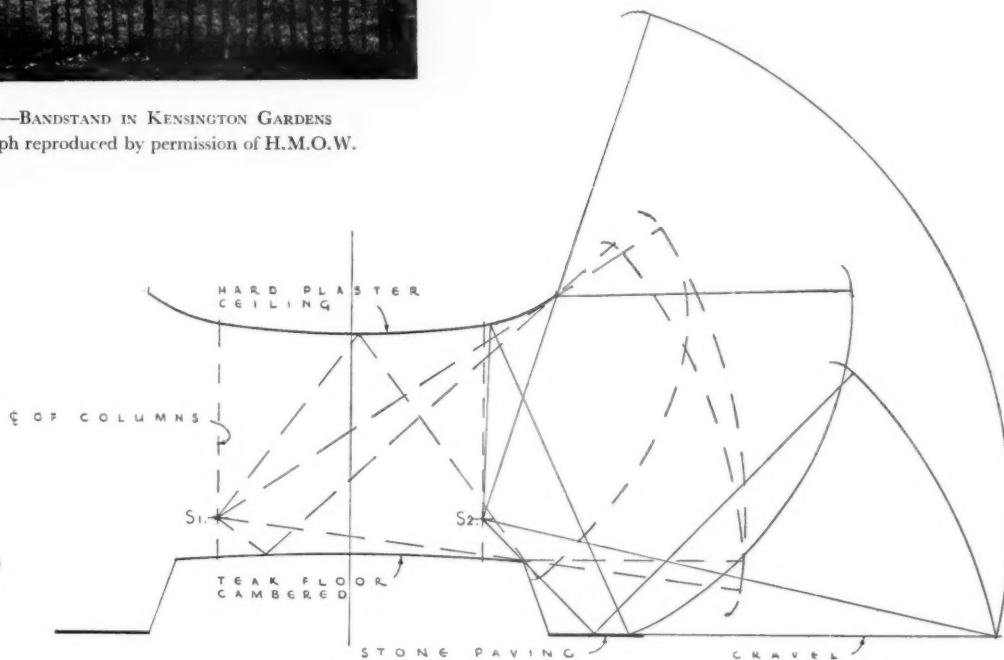
A suggested section for an open-air pulpit is given in Fig. 10. The principal reflectors are a smooth wall behind the speaker and an overhead "sounding-board" in the shape of a half wide-angle cone. Access could be through a door in the wall, but it must be set near to the outer face and used as a reflector. The floor of the pulpit should be at least 6 feet above the ground.

#### SOUNDING-BOARDS OVER PULPITS

There are two cases in which a board, properly suspended or fixed above the head of a preacher, may improve the articulation in a church.

(1) It may serve as a screen to cut off vertical, or nearly vertical, sound from the source, which is returned to the source and adjacent listeners (as from a high nave ceiling) after an interval long enough to cause an echo. In this case, the board *A—B* (Fig. 11) must be large enough to cover the whole beam whose limiting ray is shown by the

FIG. 9



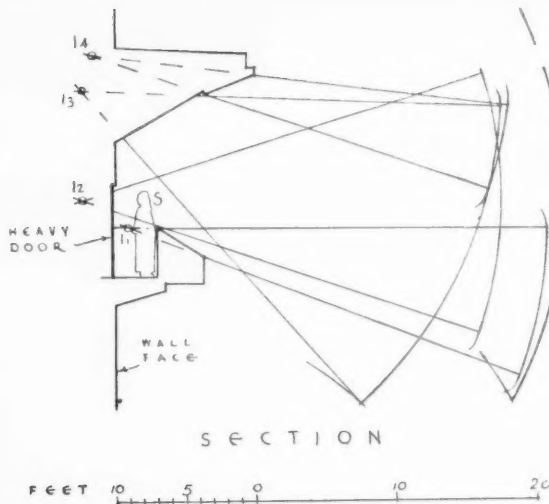


FIG. 10.—REFLECTION DIAGRAM FOR AN OPEN-AIR PULPIT

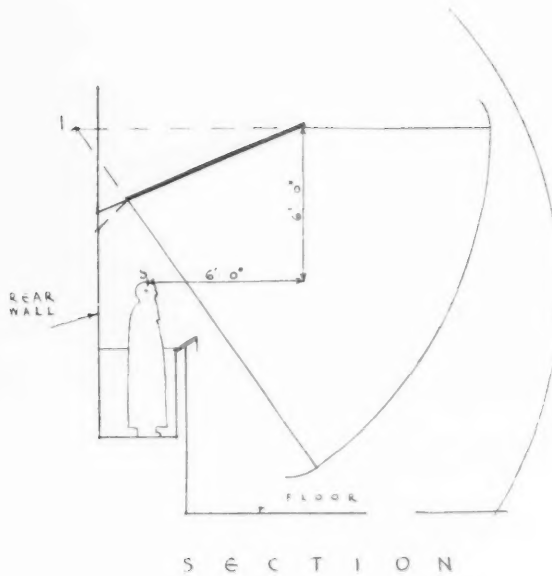


FIG. 12.—BOARD USED AS A REFLECTOR

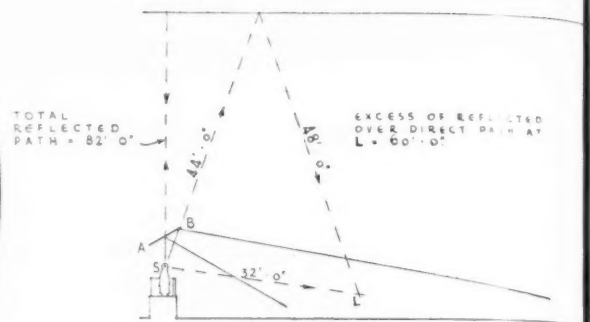


FIG. 11.—BOARD USED TO PREVENT DELAYED REFLECTIONS

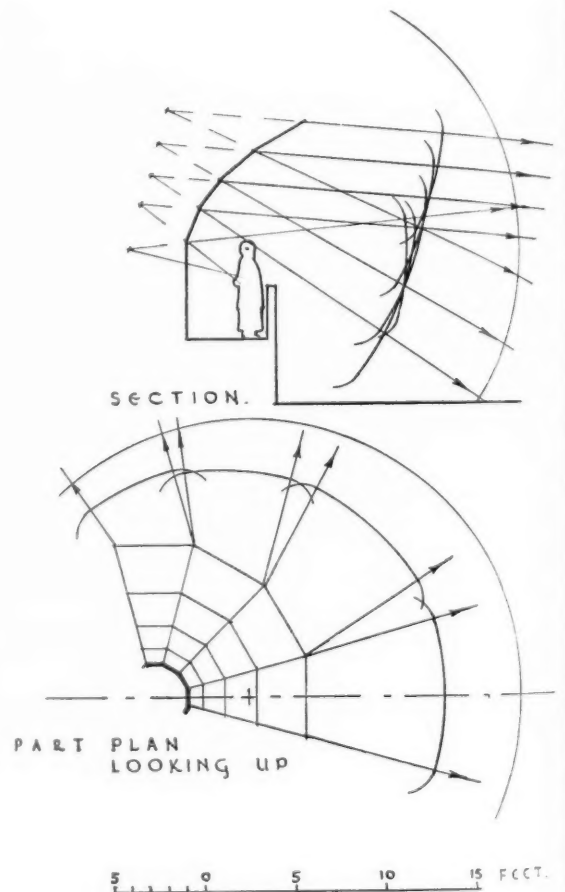


FIG. 14.—REFLECTIONS FOR PULPIT BUILT AGAINST A PIER OF THE NAVY

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reflected path to *L* and might be tilted so that the beam is reflected on to the congregation.

(2) It may be used only as a reflector. In this case the simplest form is a plane surface sloped at an angle of  $22\frac{1}{2}^\circ$  to the horizontal and with the higher edge 6 feet above the preacher's head and projecting 6 feet in front (Fig. 12). The minimum size for such a reflector should be 8 feet square and there should in addition be a reflecting wall behind the pulpit.

Special forms of reflectors must be provided for isolated pulpits, as in Fig. 13, and for pulpits built against a pier, of the nave, as in Fig. 14. In the latter case side reflectors, which could be glazed screens, should be added if possible. A sounding board of this type, with glazed side

reflectors at right angles, was recently erected by the author. Subsequent reports showed that preaching conditions were improved and that articulation in the remotest seats had been brought up to a satisfactory level.

#### MATERIALS

There should be no difficulty in the choice of building materials for reflectors. Laminated board or solid paneling, hard plaster on metal lathing, masonry, concrete and brick (plastered or unplastered), metal and heavy plate glass firmly bedded will all give a high degree of efficiency.

*Details of the bandstand in Kensington Gardens are reproduced by permission of His Majesty's Office of Works. The copyright is vested in His Majesty's Stationery Office.*

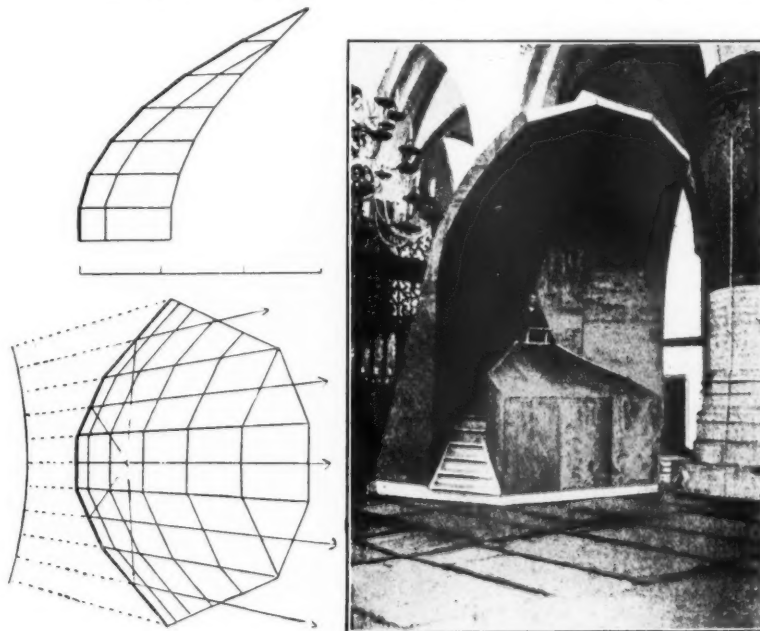


FIG. 13.—A LARGE SOUNDING BOARD OF MODERN DESIGN  
[Reproduced by permission from *Knudsen's Architectural Acoustics*]

#### SOME BOOKS ON ACOUSTICS

\*BAGENAL, HOPE, and WOOD, A. *Planning for Good Acoustics*. London. 1931. 22s. 6d.

BROWN, B. *Talking Pictures*. London. 1931. 12s. 6d.

\*DAVIS, A. H., and KAYE, G. W. C. *The Acoustics of Buildings*. London. 1927. 15s.

HUNTLEY, A. G. *Acoustics* (Royal Society of Arts, Cantor Lectures). Pamphlet. 1928. 2s. 6d.

\*KNUDSEN, V. O. *Architectural Acoustics*. New York and London. 1932. 40s.

\*RICHARDSON, E. G. *An Introduction to the Acoustics of Buildings*. London. 1933. 3s. 6d.

\*SABINE, P. E. *Acoustics and Architecture*. New York and London. 1932. 21s.

\*SABINE, W. C. *Collected Papers on Acoustics*. Harvard. 1922. 17s.

\*WATSON, F. R. *Acoustics of Buildings*. New York and London. 1923. 15s.

WEST, W. *Acoustical Engineering*. London. 1932. 15s.

\* *In the Loan Library.*

#### PAPERS IN THE R.I.B.A. JOURNAL

BAGENAL, HOPE. *Planning for Good Acoustics*. 22 November, 1924. *Designing for Musical Tone*. 17 October, 1925.

*Acoustics of Building—a review and an appeal*. 28 April, 1928. *The Leipzig Tradition in Concert Hall Design*. 21 September, 1929.

*Bach's Music and Church Acoustics*. 11 January, 1930.

SUTHERLAND, G. A. *Acoustics of the Auditorium*. 22 September, 1923.

# Architects' Benevolent Society

## ANNUAL GENERAL MEETING

The Annual General Meeting of donors and subscribers to the Architects' Benevolent Society was held in the rooms of the R.I.B.A. on Tuesday, 16 May, 1933, at 5 p.m., the President, Sir Raymond Unwin, in the Chair.

The Annual Report was read and adopted.

The President, in moving the adoption of the Annual Report, said:—

I should like to draw your attention to the work of the Architects' Unemployment Committee. This has been a year of peculiar difficulty, and one in which the Benevolent Society has had the credit, through the Unemployment Committee, of having set a notable example in dealing with unemployment in the architectural profession. The Committee have been most fortunate in the support they have received from many donors and subscribers, some anonymous and others whose names we know. We have been greatly helped by Mr. Greville Montgomery and the dance which he gave at Olympia, and Mrs. Lanchester who organised it. A large number of architects have been given work through the Committee in a way that has made a valuable contribution to our knowledge of London. Much preparatory work is necessary before we can make plans for the development of London. It is well known that the Ordnance maps were badly out of date, a state of affairs due to the economy practised during the past ten years, and more particularly for the past five or six years; this was becoming a serious question. As far as London is concerned, a large-scale Ordnance plan is being prepared from a survey made by unemployed architects showing the distribution of domestic, commercial and industrial buildings. A knowledge of uses confirms that the mix-up in London is terrible to contemplate. A survey of the buildings in these plans has shown there is going on a prodigious waste of all kinds, but particularly a wastage due to the misplacement of buildings: good residential buildings being spoiled by the intrusion of odd commercial buildings here, there and everywhere. Some control is needed.

In addition, the architects employed under the scheme have made measured drawings of old buildings of architectural value, the records of which were liable to be lost for all time. We may say that in London good value has been obtained for the money spent in relief. The work was of a kind that would not otherwise have been done, and has done nobody out of a job. Our best thanks are due to the London Society and to Mr. Percy Lovell, the Organising Secretary, and to Mr. Maurice Webb, the Chairman of the Committee, for the thought and the amount of work they have put into the scheme. As regards figures, the large sum of £7,155 had been received, but at the end of the year we had only £1,663 left, or barely enough to keep going for a further three months.

The ordinary work of the Society has been interfered with and subscriptions have decreased. I think we may congratulate ourselves that the fall is so creditably small considering the amount put into the unemployment work and the numbers who have been passing through difficult times. We have incurred on our income a deficit of £126.

The Council for the ensuing year was elected as follows:—  
President: The President of the Royal Institute of British Architects.

Vice-Presidents: Mr. Walter Tapper, A.R.A., F.S.A., P.P.R.I.B.A.; Mr. H. S. E. Vanderpant, Hon. A.R.I.B.A.

### ORDINARY MEMBERS.

- Mr. Charles Woodward [A.].  
Mr. L. S. Sullivan [F.].  
Mr. C. E. Elcock [F.].  
Mr. S. Phillips Dales [F.].  
Mr. R. Dircks (Hon. A.R.I.B.A.).  
Mr. Maxwell Ayrton [F.].  
Mr. C. McArthur Butler [L.].  
Mr. J. Alan Slater, M.A. Cantab. [F.].  
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Mr. R. E. Enthoven [F.].  
Mr. Arthur Keen [F.].  
Mr. Francis Jones [F.]. (representing the Manchester Society).  
Mr. C. M. Hadfield [F.]. (representing the Sheffield, South Yorkshire and District Society).  
Mr. Ingaltion Sanders [F.]. (representing the Hampshire Society).  
Mr. C. Lovett Gill [F.]. (representing the Architectural Association).  
Mr. Arthur Crow [F.]. (representing the London Society).  
Mr. C. McLachlan [A.]. (representing the Association of Architects, Surveyors and Technical Assistants).  
Mr. E. Hadden Parkes (representing the Mount Pleasant Artists' Rest Home).  
Mr. Maurice E. Webb, D.S.O., M.C., M.A. Cantab. [F.], Honorary Treasurer.  
Sir Charles Nicholson, Bart., M.A. Oxon. [F.], Honorary Secretary.  
Mr. Charles Woodward [A.] and Mr. H. S. E. Vanderpant (Hon. A.R.I.B.A.) were elected as Honorary Auditors.

### ARCHITECTS' UNEMPLOYMENT RELIEF FUND

The Architects' Unemployment Committee have to acknowledge the following donations since the publication of the last list in the JOURNAL:—

	£	s.	d.
Northern Architectural Association (2nd donation) ..	10	10	0
Mr. Norman O. Searle (in addition to subscription) ..	10	10	0
Leicester and Leicestershire Society of Architects (2nd donation) ..	10	0	0
Architectural Staff, Lloyds Bank (2nd donation) ..	7	14	6
Mr. Sidney J. Adams (2nd donation) ..	5	5	0
Mr. W. H. Ansell (2nd donation) ..	3	3	0
Mr. John E. Yerbury (4th donation) ..	2	10	0
Mr. W. N. Scaife ..	2	2	0
Mr. C. McArthur Butler (4th donation) ..	1	1	0
Mr. Albert H. Fennell (2nd donation) ..	1	1	0
Mr. Basil H. Tripp (2nd donation) ..	1	1	0
Mr. H. G. Gamble (2nd donation) ..	1	0	0
Mr. Ernest Frear ..	10	6	
Mr. William Dingwall has sent cheque for £1 10s. in renewal of his subscription.			

Cheques should be made payable to the Architects' Unemployment Committee and sent to the Secretary, Architects' Unemployment Committee, 9 Conduit Street, London, W.1.

## Reviews

### THE LOOM OF ARCHITECTURE\*

It is sometimes said that Architecture in this country does not receive enough of the fresh air of open criticism and that whereas most people have standards and, we can add, a ready jargon for the criticism of the other Arts, they have no criteria for the art of building. It might, however, be said, that what Architecture lacks is not criticism of a sort, but *clear-headed* criticism based on anything more firm than capricious and personal predilections. Mr. Towndrow, who has had many years' experience as a critic both in the professional and lay press, has in his book, *Architecture in the Balance*, attempted to set down the bases of his own critical outlook. Unfortunately, though his theme is an excellent one as enunciated in an introductory chapter, his argument becomes so involved and so wrapped up in not very clearly developed philosophising that the reader is left very little further advanced at the end than he was at the start. He has an unfortunate habit of argument by syllogism, a notoriously risky procedure, and one which lays itself open to the reproach of being sophistry. At its best syllogism demands an exactitude of terminology that modern architectural criticism does not yet possess, and though Mr. Towndrow makes valiant attempts to define his terms such as "modern," "art," "beauty," "function" and the rest he does not provide definitions as clear as his method demands. He also leaves the majority of his fundamental definitions until the last few pages so that for the greater part of the book we are left without essential information, and indeed we find that the author has not himself been consistent in the use of his terms (*cf.* the use of the word "art" on pp. 50 and 51 and the definition on p. 153).

Mr. Towndrow must forgive these remarks on his method, since in a book designed to criticise the rationale of another art the reader, if he is to be properly convinced, must be convinced first of all by the presentation of the subject.

In several passages we are warned against criticism based on façade architecture, and yet to illustrate his theme we are only given pictures of façades and are even given to understand that in street architecture the façade is the most important part, since "it is not the man who lives in the building who sees most of it, but the man across the street," and that buildings differing considerably in use should still be subjected to uniform façade design—this coming after his italicised statement that the

ideal modern building is one in which every part has been thought out from the point of view of its service and not from the point of view of its visible effect. These are all details and we could name many more no less open to criticism.

Much more fundamental, however, is the method of using argument framed on generalisations which does not itself have general application, and that desperate ruse to start off a theory with a swing—used with some effect by Geoffrey Scott—in which the author erects his own dummy at which to hit. In this book he takes the form first of a policeman, than of a variety of characters defined syllogistically and called the Individualist (strange to say, Sir Reginald Blomfield), the Aesthetician, the Expressionist, the Academician, and the Formalist (who sometimes is Mr. Trystan Edwards, and sometimes even too Edwardian for him), and many others. As every character speaks his part quite perfectly Mr. Towndrow generally has it all his own way, or would have if he were consistent in the development of his argument, but whereas the Individualist is a good target in one chapter he reappears as the hero in another, when Brunelleschi, Frank Lloyd Wright and others are called to witness to sudden changes from accepted form. Mr. Towndrow sees no individualists in the "best" periods, but inability to detect the personal element is no evidence that it does not exist. We all know the type of person who says of an art with which he is out of sympathy, "All this modern stuff seems the same to me," and so when a critic fails to acknowledge the power and spirit of individual and national ideas in either Gothic architecture or Greek or Georgian architecture, he is, in fact, confessing to nothing more than his own inability, and can properly deduce no moral about the evil of individualism. This is not to say that conflict of *styles* is desirable—that is another thing altogether and was indeed the chief cause of the trouble in the nineteenth century.

Similarly in the chapter on Aestheticism a very doubtful analogy is made between music and architecture, in which we are told that the beauty of architecture can never hope to serve us as does the Emperor Concerto, which bears us "up and out upon the trembling heights and becomes a part of some universal beauty which is wider than life and deeper than thought." The degree of æsthetic reaction is a personal thing and generalisation about it can hardly form the basis of a closely reasoned argument.

It is extremely difficult to deal adequately with Mr. Towndrow's argument because we are distracted on

\**Architecture in the Balance*. By Frederic Towndrow. London: Chatto & Windus. 1933. 7s. 6d.



every page by these unstable generalisations and questionable analogies. He says, for instance, that all writing is not literature but only such part of it as has a proved excellence. Mr. Towndrow seems to realise the difficulties of qualitative differentiation and adds that to speak of the best is purely a relative term, related to nothing but itself, yet he lands us with this qualitative definition of architecture that "architecture is building which displays certain qualities not only according to its kind but according to all the other qualities and conditions that surround it" and goes on to add that what we call beauty is not bound up with this high quality of performance nor is it an essential criterion of it. On the last page there is an italicised conclusion in which we read that we are given a sense of beauty "to distinguish the good from the bad by the intuitive process of æsthetic pleasure."

We know that extracted snippets hardly convey a full idea of the reason underlying the argument but a coherent argument cannot so easily be caught out.

Unfortunately Mr. Towndrow starts one chapter on the Expression of Structure with the disarmingly ingenious phrase "and here I must endeavour to judge fairly"! Æsthetic philosophising is neither so easy nor so lacking in importance that an author can safely open himself to the reproach of glibness which this remark encourages. It is by such remarks and inconsistencies that Mr. Towndrow damages a case that otherwise might be good.

There is little in all that we have said of definite criticism of Mr. Towndrow's conclusions, which are that architecture is anonymous, communal and international. There may be a case, but it is not proved.

Despite its defects *Architecture in the Balance*, as those who know Mr. Towndrow as a speaker and journalist would expect, is a most stimulating book. It raises more questions than it answers and is provocative of thought. The conclusion is perhaps too involved, as is the method of reaching it, to be convincing, but within a very heavy wrapping there is a nucleus that demands attention.

E. J. C.

#### A HISTORY OF IVER

A HISTORY OF IVER. By W. H. Ward and K. S. Block. London. Martin Secker. 1933. 10s. 6d.

This is an excellent and scholarly book and should be of especial interest not only to dwellers in the pleasant county of "Bucks," but to all country lovers who have a liking for, and some moderate knowledge of, rural archæology. It is sad that the original author, who was a personal friend of mine, and, like myself, a Fellow of the R.I.B.A. and of the Society of Antiquaries, should not have lived to complete his historic and descriptive record of the village he knew and loved so well, but we have to thank Mr. Block and Miss Ward, a sister of the original author, for their most efficient completion of what would, without their kindly assistance, have remained a literary derelict.

Trained by pupillage in the offices successively of three well-known architectural knights, pupil of Sir Arthur Blomfield, and subsequent assistant to Sir Ernest George and to Sir Edwin

Lutyens, Ward, after this experience, "set up for himself" and carried on a quiet architectural practice, but had always a literary bent, and, doubtless owing to the fact that his mother was a lady of French-Swiss origin, well versed in the French language, and being personally greatly interested in France and her architecture, had paid repeated visits to that country before producing his *Architecture of the French Renaissance*, these visits being naturally marked by special concentration upon the admirable buildings in which that country abounds. From the professional consideration of the architecture of a great and notably architectural country like France, to the history, human and structural, of a charming and quiet little English village, was a long step, but one which has been accomplished, in the first place by its original author, and in the second by Mr. Block, with the valuable help of Miss G. M. A. Ward, the author's sister, in a manner which provides a most readable and interesting record of this singularly attractive village, whose history reflects at every point its unconscious share in the general national story of England.

Iver lies in the plain westward of London, and at a distance only of about 15 miles from the Marble Arch, but is a singularly pleasant, and as regards its ancient and original portion, an unspoiled village, whose name is probably derived from the Norman-French form of Eure or Evre, which occurs in early records, such as the rights of common, affecting the power to graze beasts upon the waste land, and the rights of warren, affecting the wild game.

The chief monument of Iver is, of course, the parish church, and this building is described and illustrated by photographs in the book; the title page showing a charming old print of Iver in 1817 in which the plain and short, but dignified church tower is a central feature. Other photographic illustrations show an ancient stone coffin, which stands in the churchyard, the many-gabled Manor House known as Delaford, doubtless from its propinquity to the Colne River, which house has unfortunately been demolished, the fine old three-arched stone bridge, and "Bridgefoot," a charming and characteristic brick-built house near the latter, fronted by a delightful wrought iron fence with a high central gate supported by stout brick columns capped in stone, with imposing ball finials, while the outer ends of the fence are terminated by piers bearing stone tapered obelisks. This house is not only the most handsome in the village, but will be the more interesting perhaps to architects from the fact that it was inhabited for some years, 1890-1899, by Professor E. S. Prior, A.R.A., and subsequently by Mr. G. F. Bodley, R.A., for several years. Mr. Bodley, as Mr. Ward has said, commemorated the charms of the old house in one of his poems, for he was an artist in more ways than one. I can speak from experience of the internal as well as external charms of the old house and its garden, but this I am not able to do in the case of the several other interesting dwelling houses mentioned by the author.

The most conspicuous monument of Iver is naturally the church, which is not only very centrally and handsomely placed in the village, but has many points of interest. Its main entrance is at the base of the flint-faced square tower at its western end. This tower is very plain and simple, but extremely well-proportioned and dignified in effect. It has remarkably short buttresses, rising indeed to less height than that of the doorway, and, except for the belfry near the top, has very few windows other than one fairly large three-light, of "perpendicular" character, over the western door.

The church is simple but most interesting in character, and

has, like most other ancient parish churches in England, been considerably altered at various dates, and has further similarly undergone their usual fate of "restoration" in modern times, in this case at the hands of Sir Gilbert Scott in 1848, who seems, however, to have discovered and revealed several interesting features, notably the beautiful sedilia in the south wall. The arcading of the south aisle and the chancel arch are of typical and refined 14th century character, but the stout round columns supporting them indicate the previous church to be early Norman, or possibly Saxon, as the author appears to have thought. I think the former attribution more likely.

The book, with its excellent illustrations, gives not only a clear and most interesting account and description of an unusually pleasant and handsome village, but bears the impress of acute observation and scholarly knowledge, not only on the part of the original author, but also of the sister and friend who have so loyally and handsomely rescued it from incompleteness. It provides an admirable record of the village and its photographic records are excellent. EDWARD WARREN [F.]

### THE MOSQUE OF AMRU

LA MOSQUÉE DE 'AMRU. By K. A. C. Creswell [Hon. A.]. Translated from the English by Mrs. R. L. Devonshire. Extrait du Bulletin de l'Institut français d'archéologie orientale. Cairo. 1932.

This interesting monograph, describing one of the oldest and most famous of mosques, was originally prepared as a thesis for an architectural competition in 1926 and has been little altered since. The object of the competition was to reconstruct the building, now in a sad state of disrepair, as it appeared in the days of its greatest splendour. Mr. Creswell came to the conclusion, after long research, that the mosque of 'Amru, at Old Cairo, attained that position at its enlargement in A.D. 827, and this monograph gives in detail the reasons for his conclusion. He does not tell us whether the restoration has commenced, or whether his great knowledge is being utilised by the authorities; but the value of his laborious studies must be evident to the reader of this book. The mosque was commenced in A.D. 642, shortly after the Muslim conquest of Egypt, but in its first form was a small and primitive structure devoid of architectural interest. It was enlarged and altered again and again between 673 and 827, when it attained its present noble dimensions, about 400 by 360 feet on plan. Mr. Creswell succeeded in discovering sufficient authentic remains of the early ninth century to enable him to offer a restoration of convincing simplicity, here illustrated in plan and elevation. The book is divided into three sections: a history of the building from documents, a detailed architectural study of the existing structure, and a voluminous bibliography. It is generously illustrated with collotype, half-tone and line drawings, including some admirable new plans; and is a characteristic product of its author's patience and scholarship.

MARTIN S. BRIGGS [F.]

### TUBERCULOSIS AND HOUSING

CASUAL FACTORS IN TUBERCULOSIS. By F. C. S. Bradbury. London: The National Association for the Prevention of Tuberculosis. 1933. 25s.

This report contains the results of a very valuable investigation into the incidence of tuberculosis in certain Tyneside districts, which were chosen for special study for several reasons, chief of which is that the Tyneside area has a higher incidence than most other parts of England and is thus particularly suitable for an intensive study. There are many things in the report of value to those interested in slum clearance and housing since, as was to be expected, the report shows that there is a very clear relation between housing conditions and the incidence of the disease, or perhaps more accurately we should say, between poverty and the disease; poverty brings overcrowding, insanitation and under-nourishment, all contributing factors, particularly the first, which in Tyneside as in London is associated with ill-lit and ill-ventilated tenements.

The special chapters on housing conditions should be read and used as a basis of their study by every student and propagandist and architect interested in slum clearance.

### HEATING AND VENTILATION

HEATING, VENTILATING AND AIR CONDITIONING. By L. A. Harding and A. C. Willard. New York: John Wiley; and London: Chapman and Hall. 1932. 62s. 6d.

First published in 1916, Messrs. Harding and Willard's standard work on Heating and Ventilation has now been revised for the second time and the title has been expanded to include a reference to Air Conditioning. Although it refers, naturally, to American practice, the book is full of technical information no less valuable on this side of the Atlantic than the other. The English reader must, however, be alert to notice where practice is different in America, owing to differences in byelaws, which so often compel the architect to follow methods which are not ideal technically. As an example of this, outside the province of this book we can cite the restrictions which prevented the use of the one-pipe system of drainage in this country until quite recently.

In this new edition practically every chapter has been written to keep the book fully up to date, and to provide additional information for which a demand has been shown so that every aspect of the subjects with which the authors deal is considered at some length, unfortunately within the limitations of a short notice it is impossible to draw special attention to any part where so much is of value. In conclusion we may add—to remove a general misconception among architects who are often frightened of highly technical books—this is essentially a book of value to the architect. Its tables and diagrams are clear and instructive and it is a book in which the essentials of good practice are continually emphasised.



## Obituary

### HENRY ALBERT SAUL [F.]

Mr. Saul received his architectural training at the Royal Academy School and the Architectural Association and, later, in the office of Mr. H. D. Searles-Wood [F.]. He travelled very extensively in France, Italy and Holland. In 1896 he started in practice in London and continued until his death in April this year. During the latter part of the war he held a post in the Ministry of Health. He was elected an Associate of the Institute in 1902 and a Fellow in 1915.

Mr. Saul's architectural work included various buildings in the City of London, the most important of which were the Eastern Telegraph Co.'s office and premises for the Leather Sellers' Company, St. Helen's Place, and "Grossmith's," Newgate Street, and numerous country houses all over England, particularly in Surrey and Kent. He also did a lot of arbitration and valuation work.

Mr. Saul will be very widely missed. His was a very charming personality, and his clients invariably seem to have become his permanent friends.

### FRANK WALTER MEE [Retd. F.]

The late Mr. Frank Mee, who since 1886 had practised in Manchester, received his architectural training in the office of the late Alfred Waterhouse. He was one of the first members of the Manchester Society of Architects, a member of the Council and Competitions Committee, and became Vice-president of the Society soon after its incorporation.

Mr. Mee's principal works included the plans for the rebuilding of Mézières, the French town adopted by Manchester after the war, for which he also designed many houses; various

large warehouses, and Council Schools for Stretford and district; but he specialised in the design of country houses, of which he built a great number.

### JOHN GODDARD WILSON [F.]

Mr. J. Wilson received his training in the office of Sir Aston Webb, and later went out to South Africa when quite a young man for reasons of health. He was in the Government offices in Capetown and Pretoria, and when through ill-health he was forced to retire in 1927 he was holding the post of Senior Assistant Architect in the Department of Public Works.

### WILLIAM CLARK [L.]

Mr. W. Clark was educated at Dundee High School and served his apprenticeship with McCulloch and Jamieson, architects, and later with Mr. John P. Bruce, Dundee. He was for some years in charge of the drawing office of J. G. Sibbald and Son in Dundee, and later was appointed Burgh Surveyor in Tayport. For the last eighteen years he had been Burgh Surveyor in Newport, Fife. His principal architectural works include the Girls' High School, the Ward Road Gymnasium and the Old School Board Offices, Dundee, and the Newport housing scheme. His practice is being carried on by Mr. William Kelly, Municipal Buildings, Newport.

### GILBERT WILSON [L.]

Mr. Gilbert Wilson received his training in the office of Mr. G. Clegg, in Oldham, and was later employed in Manchester by the Board of Works. In 1898 he started in a practice of his own in Southport, where he continued till his death last month. His principal architectural works included the ballrooms and additions to several of the local hotels, including the Victoria Hotel and the Palace Hotel, Birkdale, and the Prince of Wales Hotel, Southport. He was elected a Licentiate in 1925.

## Notes

### VICE-PRESIDENTS' ENGAGEMENTS

Mr. L. Sylvester Sullivan (Vice-President) will be attending the dinner of the Merchant Taylors' Company on the 26 June, in place of the President.

### R.I.B.A. SCALE OF CHARGES

The Practice Standing Committee have recently given a member their interpretation of the meaning of Clause 5 of the R.I.B.A. Scale of Charges, and as it has been suggested that this opinion may be of interest to members generally, it is given below for their information:—

The term "sketch design" in Clause 5(a) should be interpreted as scale drawings sufficient to indicate to the client the architect's interpretation of the client's wishes, but not sufficiently detailed to enable the builder to carry out the work. Such drawings should normally include plans of all floors, diagrammatic section, and at least one elevation.

In Clause 5(b) the term "preparing drawings sufficient to enable quantities to be prepared or a tender obtained" is intended to mean working drawings sufficient to enable the builder to carry out the work from them.

### ANCIENT LIGHTS

#### ROBERTSON v. SHEARS, CHANCERY DIVISION

MR. JUSTICE BENNETT, 8 and 9 May 1933

This case related to obstruction of light to a scullery about 8 feet by 10 feet, forming the ground floor of a back addition of one of a row of terrace houses, No. 17 New King's Road, Fulham, by the raising and extension of the back addition of the adjoining house. The scullery had been converted into a kitchen, and the original kitchen utilised as an additional living room. The property was controlled. Evidence was given as to the disposition of adequate and inadequate light in the room before and after the obstruction and as to the impossibility of detecting defects, dirt, etc., on various articles of food outside the restricted area of adequate light close to the window.

The obstruction being completed before action was brought damages only were claimed. Damages were claimed on the whole house on the ground that adequate light in the kitchen governed the rental value and lettable of the house even though other rooms remained well lit.

The defence was based on the contention that town kitchens were necessarily dark, and that the room was too small to be material, that the property being controlled, damage to rental was negligible.

Mr. Vaisey, K.C., appeared for the plaintiff, and Mr. Cleveland-Stevens, K.C., for the defendant. Evidence was given for the plaintiff by Mr. P. J. Waldram, F.S.I., and Mr. L. A. Culliford, F.R.I.B.A., and by Mr. W. Doddington, F.R.I.B.A., for the defendants. The learned judge held that the alleged nuisance affecting the value of the reversion to the property as a whole had been proved, rejecting the contention that dark kitchens were customary in town houses, and expressing the opinion that if the action had been brought in time the plaintiff would have had little or no difficulty in obtaining an injunction. He assessed the damages at £150. An application to disallow the costs of expert witnesses was refused.

### THE PLANNING OF INDUSTRIAL AREAS

The International Federation for Housing and Town Planning has issued a bulletin containing an interesting illustrated report on *The Planning of Industrial Areas in Great Britain*, compiled by Mr. H. Chapman from information supplied by a number of areas. Particulars are given regarding sizes of plots, types of factories and industries, transport facilities, provision of public utilities (gas, water, power), etc., labour supply, relations between the industries in the area, planning of the area and arrangement of railway tracks, methods of disposing of land (sale, lease, etc.), building restrictions, relation of industrial area to residential areas, sources of supply of raw materials, etc. The bulletin also contains a short report of Town Planning Education in Denmark. Each report is in English, French and German.

Particulars regarding the bulletin and membership of the Federation can be obtained from the International Federation for Housing and Town Planning, 25 Bedford Row, London, W.C.1.

### FIRE INSURANCE

At a recent meeting of the Committee of the South Eastern Society of Architects the late Mr. Edward Penfold [F.] drew the attention of practising architects to an important point with regard to fire insurance, which he embodied in the following note:—

"There is a matter which I think should be brought to the notice of our colleagues with regard to the fire insurance of buildings when alterations are carried out and the building owner is liable for the whole of insurance as clause 17 (B) in the new conditions.

"If a fire occurred through negligence by the builder and if the insurance amount of the original building is found to be insufficient to make good the damage, the owner can recover from the builder the difference between the amount of his insurance and the actual cost of making good the damage; it appears, therefore, that the architect or the builder before commencing the work should ascertain from the owner if the latter's policy is for a sufficient amount.

"The question also arises in cases where the architect or the owner employ other firms to carry out work on the building, who are not ordinary sub-contractors included in the specifications; these firms often do not insure their work and in the case of a fire by negligence of the builder, they might be able to recover the amount from the builder.

"There is another point frequently overlooked; the architect in giving particulars to the owner for insurance should include a separate amount for fences and gates as well as for rent and architects' fees for rebuilding."

### SHAKESPEARE MEMORIAL THEATRE

In the last number of the JOURNAL it was incorrectly stated that the photograph of the Shakespeare Memorial Theatre, reproduced on p. 531, was taken by Mr. F. K. Yerbury. This photograph was actually taken by Mr. G. A. Jellicoe.

### R.I.B.A. PROBATIONERS

During the month of April 1933 the following were registered as Probationers of the Royal Institute:—

ABERCROMBIE: NATHANIEL GORDON, 18 Village Road, Oxtou, Birkenhead.  
 BELL: JOHN THORNTON, 3 Ashfield Place, Otley, Yorks.  
 BELT: THOMAS EDWIN, Rosebery House, 47 Queen's Parade, Scarborough.  
 BOYD: WILLIAM TRAYNOR, 111 Duke Street, Barrow-in-Furness, Lancs.  
 BROWN: MAURICE JOSEPH, 92 Spottiswoode Street, Edinburgh 10.  
 CHAMBERLAIN: ERIC WILLIAM, 26 Delph Street, Wigan, Lancashire.  
 GASSON: ARTHUR JOHN, 42 Mays Hill Road, Shortlands, Kent.  
 GILL: WILLIAM HENRY, Commercial Hotel, Landore, Swansea, Glam.  
 GREEN: CECIL GEORGE, 20 Bathwick Hill, Bath, Somerset.  
 HATCHELL: CHRISTOPHER WILLIAM, 16 Watlands Avenue, Wolstanton, Staffs.  
 HAYES: FRANK, "Sunny Mount," Woodborough Road, Mapperley, Nottingham.  
 HOWITT: SYDNEY GERALD, 100 Portland Road, Hucknall, Notts.  
 JOHNSTONE: JAMES NOEL NAPIER, 42 Herriet Street, Pollokshields, Glasgow, S.1.  
 KINVER: WILLIAM FREDERICK, 14 Belvedere Road, Taunton.  
 LACY: ALEC BURTON, "Eryholme," Yearsley Bridge, York.  
 LITTLE: BERNARD GEORGE, 36 St. Mary's Street, Wallingford, Berks.  
 MOORE: SYDNEY WALTER GORDON EDWARD, 84 St. Leonard's Road, Newton Abbot.  
 PARTRIDGE: CHARLES CECIL, 29 Clandon Road, Seven Kings, Essex.  
 ROBERTSON: ALISTAIR STEWART, "Drumochter," Needless Road, Perth.  
 SADDLER: ROBERT, 12 St. James Road, Forfar, Angus.  
 STINSON: WILLIAM, 106 Chesterfield Road, St. Andrew's Park, Bristol.  
 TAUTE: MATTHYS P., P.O. Box 87, Oudishoorn, Cape Province, South Africa.  
 WIGINGTON: ROBERT, 87 Plantation Road, Oxford.  
 WORROW: JOHN PEARSON, 230 High Road, Loughton, Essex.

### ELECTION OF STUDENTS R.I.B.A.

The following were elected as Students R.I.B.A. at the meeting of the Council held on 8 May 1933:—

ABERCROMBIE: NATHANIEL GORDON, 18 Village Road, Oxtou, Birkenhead.  
 ATKINSON: WALTER WARNE, 71 Corinne Road, Tufnell Park.  
 CASSON: HUGH MAXWELL, Little Heath, Bassett, Southampton.  
 HALKERSTON: WILLIAM, 71 Fonthill Road, Aberdeen.  
 JORDAN: ERNEST DENNIS, Hinckley Road, Earl Shilton, Leicester.  
 MCHARG: SAMUEL, 13 Prestwick Road, Ayr.  
 SARGISON: VICTOR JAMES, 14 Mall Road, London, W.6.  
 VOLLER: RODERIC WALTER, 1 Palace Court, Bayswater Road, London, W.2.  
 WILKIE: ALEXANDER ABERCROMBIE, 8 Philip Street, Bainsford, Falkirk, Scotland.  
 WILSON: DAVID MARSHALL MILLWOOD, 5 Linnell Drive, Golders Green, London, N.W.11.  
 WORROW: JOHN PEARSON, 230 High Road, Loughton, Essex.



## Notices

### THE TWELFTH GENERAL MEETING

The Twelfth General Meeting of the Session 1932-33 will be held on Monday, 12 June 1933, at 8 p.m., for the following purposes:—

To read the Minutes of the Eleventh General Meeting held on Monday, 22 May 1933; formally to admit members and students attending for the first time since their election.

To read the report of the Scrutineers appointed to examine the voting papers for the election of the Council and Standing Committees for the Session 1933-34.

### SPECIAL GENERAL MEETING

At the conclusion of the above General Meeting, a Special General Meeting will be held for the purpose of confirming the following resolutions passed at the Special General Meeting held on 22 May 1933:—

1. That in Bye-law 28 (j) the words "the R.I.B.A. Registration Committee" be deleted, and the words "the Architects' Registration Council of the United Kingdom" be inserted.
2. That the necessary steps be taken to obtain the sanction of the Privy Council to such amendment to the Bye-law as is required to give effect to the foregoing resolution.

### INFORMAL DISCUSSION OF MATTERS OF PROFESSIONAL INTEREST

After the above Special General Meeting there will be an informal and private discussion of matters of current professional interest or concern. Members are invited to bring up for discussion, with or without notice, subjects of professional interest or difficulty.

### BRITISH ARCHITECTS' CONFERENCE, CAMBRIDGE 21-24 JUNE 1933

Final arrangements for all the events of the Conference are now being made. It is hoped that all members and students who have not already done so will at once refer to the programme sent to them with the last issue of the JOURNAL and send in their names without delay for such of the events as they desire to take part in.

Members of the R.I.B.A. and the Allied and Associated Societies who are officials of local authorities will be cordially welcomed as delegates to the Conference.

The Railway Companies in Great Britain have agreed to issue cheap tickets to Cambridge, available from 17 to 27 June inclusive, at the ordinary single fare and one-third for the double journey, to members and their friends who attend the Conference.

Members who desire to take advantage of this special reduced fare concession must present at the booking office a signed voucher to be previously obtained from the Secretary R.I.B.A.

### ARCHITECTS' CAMP

It is proposed to hold a camp for men members of the Conference, should they prefer this method of spending the few days in Cambridge to that of staying at a hotel or in rooms.

Apart from the fact that a considerable saving would be incurred by this method, it is also pointed out that by mingling in camp an excellent opportunity is given for forming acquaintances and friendships.

The camp will last from Wednesday, 21 June, till Saturday, 24 June, inclusive.

1. *Site*.—The camp site, which is served by 'bus routes, is in the grounds of Trumpington Hall, just two miles from the centre of Cambridge.

There will be adequate latrine and washing accommodation, the camp being staffed by Cambridge University Rover Scouts.

2. *Motor Cars*.—Campers' private cars may be brought on to the site, but they cannot be kept under cover.

3. *Bathing*.—There is bathing in the River Granta, which adjoins the camp site.

4. *Meals*.—It is anticipated that campers will prefer to get their meals in Cambridge; thus only Breakfast will be provided at a reasonable charge.

5. *Tents*.—Tent accommodation can be provided (*i.e.*, tents holding up to 4 or 6, or even more). IT WILL GREATLY ASSIST IF CAMPERS WILL BRING THEIR OWN TENTS—"HIKE" OR OTHERWISE—IF THEY OWN THEM.

6. *Charges*.—Owing to the fact that numbers of campers are unknown it is not possible to state the amount of the charges, but this will be of the minimum and payable at the camp.

Charges will be due to: Organisation, Hire of Equipment, Breakfasts, 2s. 6d. booking fee in advance.

7. *Suggested Camp Gear* (not inclusive).—Own tent (if possible). Ground sheets. Blankets or Sleeping-bags. Plates, mug, knife, fork, spoon.

8. *Intending Campers*.—Will those wishing to attend the camp kindly forward the following information to the Camp Chief, to arrive not later than Wednesday, 31 May 1933.

1. Date of arrival.
2. Date of departure.
3. Will you be bringing your own tent?
4. If your own tent is to hold more than yourself, please include names together.
5. If you require tent accommodation for a party, please include names together.
6. Will you require space in the camp car park?

The above information should be accompanied by a booking fee of 2s. 6d. per head, which cannot be returned in the event of non-attendance, but will be deducted from the camp charges.

All correspondence with regard to the Architects' Camp to be addressed to the Camp Chief: PETER BURTON, Esq., B.A., c/o H. C. Hughes, Esq., M.A., F.R.I.B.A., Tunwell's Court, Trumpington Street, Cambridge.

### THE R.I.B.A. CODE OF PROFESSIONAL PRACTICE

On the recommendation of the Practice Standing Committee the Council have amended the preamble to the Code of Professional Practice to read as follows:—

A member of the R.I.B.A. is governed by the Charter and Bye-laws of the Royal Institute. The following clauses indicate in a general way the standard of conduct which members of the R.I.B.A. must adhere to, failing which the Council may judge a member guilty of unprofessional conduct, and either reprimand, suspend or expel him or her.

Cases of unprofessional conduct not specifically covered by these clauses are dealt with by the Council having regard to the particular circumstances of the case.

NOTE.—The Code of Professional Practice is printed on pages 23-25 of the current R.I.B.A. *Kalendar*.



**R.I.B.A. NEW BUILDING**

The Rt. Hon. Lord Howard de Walden (Hon. Fellow) has kindly agreed to lay the foundation stone of the new R.I.B.A. building, and the ceremony will take place at 3 p.m., on Wednesday, 28 June.

The accommodation for those wishing to attend the ceremony will be limited to 500, and admission will be by ticket only. Tickets will be allotted to members in order of application, and those who wish to attend the ceremony are therefore requested to apply to the Secretary at an early date.

**THE RECEPTION OF NEW MEMBERS AND STUDENTS AT GENERAL MEETINGS**

It has been decided by the Council to modify the procedure for the introduction and reception of new Members and Students at General Meetings. In future new Members and Students will be asked to notify the Secretary beforehand of the date of the General Meeting at which they desire to be introduced and a printed postcard will be sent to each newly-elected Member or Student for this purpose. They will be asked to take their seats on arrival on a special bench or benches reserved and marked for them. At the beginning of the meeting, on the invitation being given to present themselves for formal admission, each new Member or Student will be led up to the Chairman by one supporter, and the Chairman will formally admit them as Members or Students.

At the close of the meeting selected members of the Council will introduce themselves to the new members and will make it their duty to introduce them to other members.

**THE R.I.B.A. REGISTER OF ASSISTANTS SEEKING ENGAGEMENTS**

Members and Students of the R.I.B.A. and the Allied and Associated Societies are reminded that a Register of Assistants seeking engagements is kept at the offices of the Royal Institute.

An assistant seeking employment should obtain from the Secretary R.I.B.A. the necessary form (to be filled up in duplicate) on which particulars must be given as to the applicant's age, qualifications, salary required, references, etc. The application will hold good for one month from the date of receipt, after which it must be renewed unless the applicant has meanwhile obtained employment.

Architects, whether members of the R.I.B.A. or not, will be furnished on application with the names and addresses of persons desiring employment as assistants, improvers or clerks of works as the case may be. Architects applying for assistants should give the following particulars of their requirements: (1) whether temporary or permanent engagement; (2) junior or senior assistants; (3) particulars of duties and style of work; (4) salary offered.

## Competitions

**PORTSTEWART: NEW MUNICIPAL BUILDINGS**

The Urban District Council of Portstewart, Co. Londonderry, invite architects practising in Northern Ireland to submit, in competition, designs for new Municipal Buildings.

Assessor: Mr. R. H. Gibson [F.], President of the Royal Society of Ulster Architects.

Premium: 50 guineas.

Last day for receiving designs: 31 May 1933.

Conditions of the competition may be obtained on application to Mr. F. Martin, Town Clerk, Portstewart. Deposit £1 1s.

**HORNSEY: NEW TOWN HALL**

The Hornsey Town Council invite architects of British nationality to submit in competition, designs for a new Town Hall.

Assessor: Mr. C. Cowles-Voysey [F.].

Premiums: £350, £250 and £150.

Last day for receiving designs: 23 September 1933.

Last day for questions: 30 May 1933.

Conditions may be obtained on application to Mr. E. B. Croasdell, Town Clerk, Town Hall, Highgate, N.6. Deposit £1 1s.

**SLOUGH: NEW COUNCIL OFFICES**

The Slough Urban District Council have decided to hold an open competition in connection with the new Council Offices which are to be erected at Salt Hill. Premiums of £150, £100 and £50 will be offered and Mr. H. S. Goodhart-Rendel [F.] has been appointed by the President of the R.I.B.A. to act as Assessor. Conditions have not yet been drawn up.

**STOKE NEWINGTON: MUNICIPAL BUILDINGS**

The Council of the Metropolitan Borough of Stoke Newington have authorised the holding of a competition for Municipal Offices and extensions to the Library and Electricity Offices. Conditions have not yet been drawn up.

## Members' Column

**PRACTICE WANTED**

L.R.I.B.A. is anxious to purchase well-established, good-class Architect's Practice for cash. In London or country. Preferably domestic. Or Partnership in well-connected firm. Write, giving full particulars, Box 2443, c/o Secretary R.I.B.A.

**PARTNERSHIP WANTED**

YOUNG A.R.I.B.A. desires to meet another young Associate, preferably school trained and living in South, with the idea of commencing practice. Write with particulars, Box No. 1153, c/o Secretary R.I.B.A.

**CHANGE OF ADDRESS**

MR. GERALD STANLEY, Associate P.A.S.I., has changed his address from 35 Park Place, Cardiff, to 100 St. Mary Street, Cardiff.

**NEW PRACTICE**

MR. A. M. PEERMAHOMED, A.R.I.B.A., has commenced practice at Ruston Building, 29 Churchgate Street, Fort, Bombay, and will be pleased to receive trade catalogues at that address.

MR. CHARLES W. GRAY [L.] has started to practise at Villa Idargalym, Ste. Maxime, Var, France, and would be pleased to receive trade catalogues at that address.

**OFFICE ACCOMMODATION**

MEMBER has to let a small office adjoining his own offices. Low rent, inclusive of furniture, light and heat, to approved tenant. Box No. 2053, c/o Secretary R.I.B.A.

**OFFICE TO LET**

ALBEMARLE STREET, W.1. Self-contained office, 15 feet by 18 feet, to let. Rent £65 p.a. or near offer. Box No. 1253, c/o Secretary, R.I.B.A.

**ROOMS TO LET**

SHARE of Chambers in Gray's Inn. 3 rooms available end of June. Telephone, etc. Apply Box No. 1853, c/o Secretary R.I.B.A.

**ROOMS REQUIRED**

YOUNG Associate wants one room in suite, or share of office with typing and telephone.—Apply, stating rent required, to Box No. 2453, c/o Secretary R.I.B.A., 9 Conduit Street, W.1.

FELLOW requires one good or two small rooms in office, W. or S.W. district. Particulars and terms to Box No. 2253, c/o Secretary R.I.B.A., 9 Conduit Street, W.1.

## Minutes XV

SESSION 1932-1933

At the Eleventh General Meeting of the Session, 1932-1933, held on Monday, 22 May, 1933, at 8 p.m.

Sir Raymond Unwin, President, in the Chair.

The attendance book was signed by 18 Fellows (including 4 members of Council), 26 Associates (including 1 Member of Council), 8 Licentiates (including 1 Member of Council), and a large number of visitors.

The Minutes of the Annual General Meeting held on 8 May 1933, having been published in the JOURNAL, were taken as read, confirmed and signed as correct.

The Hon. Secretary announced the decease of:

Julian Gulson Burgess, elected Licentiate 1911, Fellow 1925.  
Charles Gilbert Davies, transferred to Licentiate 1925, elected Fellow 1929.  
Norman King Jackson, elected Licentiate 1932.  
Charles Alexander Lawrence, elected Licentiate 1911.

and it was Resolved that the regrets of the Institute for their loss be entered on the Minutes and that a message of sympathy and condolence be conveyed to their relatives.

The following members attending for the first time since their election were formally admitted by the President:

James Bell [A.].  
Miss M. I. Mayo [A.].  
D. M. Micklethwaite [A.].  
C. P. Saurin [A.].  
Miss Constance S. Stammers [A.].  
R. J. Begley [L.].  
F. H. Adie [Student].  
Hugh Casson [Student].  
J. W. Lindus Forge [Student].  
John Grace [Student].  
A. E. McKenna [Student].  
Miss Carmen S. G. Smith [Student].  
Frank M. Rutter [Student].  
John B. Smith [Student].  
Miss E. M. Ward [Student].  
L. Hugh Wilson [Student].  
Wilfrid M. Woodhouse [Student].

Mr. Geoffrey Webb, M.A.(Cantab.), having read a paper on "The Architectural Antecedents of Sir Christopher Wren," a discussion ensued, and on the motion of Mr. Beresford Pite, M.A. [F.], seconded by Mr. H. M. Hake, Director of the National Portrait Gallery, a vote of thanks was passed to Mr. Webb by acclamation, and was briefly responded to.

This concluded the business of the Ordinary General Meeting.

## Minutes XVI

SESSION 1932-1933

At a Special General Meeting held on Monday, 22 May 1933, immediately following the Ordinary General Meeting above recorded, and similarly constituted, with the exception of guests and non-members who had been requested to retire, the President announced that the meeting had been called for the purpose of considering and, if thought fit, approving the Council's proposal to amend the Bye-laws to provide that, instead of the Chairman of the R.I.B.A. Registration Committee, the Chairman of the Architects' Registration Council, if a Fellow of the R.I.B.A., shall be an *ex-officio* member of the R.I.B.A. Council.

The following resolutions having been moved by the Hon. Secretary and seconded by Mr. H. S. Goodhart-Rendel [F.], were put to the meeting and passed by an unanimous vote:

1. That in Bye-law 28 (j) the words "the R.I.B.A. Registration Committee" be deleted, and the words "the Architects' Registration Council of the United Kingdom" be inserted.

2. That the necessary steps be taken to obtain the sanction of the Privy Council to such amendment to the Bye-law as is required to give effect to the foregoing resolution.

The proceedings closed at 10 p.m.

### A.B.S. INSURANCE DEPARTMENT HOUSE PURCHASE SCHEME.

(For property in Great Britain only.)

#### REVISED TERMS.

The A.B.S. Insurance Department is able, through the services of a leading Assurance Office, to assist an *Architect or his Client* in securing the capital for the purchase of a house on the following terms:—

#### AMOUNT OF LOAN.

75 per cent.

of the value of the property as certified by the Surveyor employed by the Office.

#### RATE OF INTEREST.

5 per cent. gross (which, at the present rate of income tax, represents 3½ per cent. nett).

#### LEGAL COSTS AND SURVEY FEE,

also the amount of the first quarter's premium on the Endowment Assurance referred to below, are advanced in addition to the normal loan. If the loan is continued for more than fifteen years the *Survey and Legal Costs* will be refunded to the Borrower on repayment of the loan.

#### REPAYMENT.

By means of an Endowment Assurance which discharges the loan at the end of 15 or 20 years or at the *earlier death* of the Borrower.

#### SPECIAL CONCESSION TO ARCHITECTS.

In the case of houses in course of erection, it has been arranged that provided the Plan and Specification have been approved by the Surveyor acting for the Office, ONE-HALF of the amount of the loan agreed upon will be advanced on a certificate from the Office's Surveyor that the walls of the house are erected and the roof on and covered in to his satisfaction.

N.B.—Loans will not be undertaken under this scheme upon:

- (a) Property the value of which is not sufficient to warrant a loan of at least £500 or of which the value exceeds £2,500;
- (b) Property of the bungalow type;
- (c) Property not in the sole occupation of the Borrower.

If a quotation is required, kindly send details of your age next birthday, approximate value of house and its exact situation, to the Secretary, A.B.S. Insurance Department, 9 Conduit Street, London, W.1. Telephone: Mayfair 0434.

Members sending remittances by postal order for subscriptions or Institute publications are warned of the necessity of complying with Post Office Regulations with regard to this method of payment. Postal orders should be made payable to the Secretary R.I.B.A., and crossed.

It is desired to point out that the opinions of writers of articles and letters which appear in the R.I.B.A. JOURNAL must be taken as the individual opinions of their authors and not as representative expressions of the Institute.

#### R.I.B.A. JOURNAL.

DATES OF PUBLICATION.—1933: 17 June; 8, 22 July; 5 August; 9 September; 14 October.

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